EXPERIENCE IN ACTION: INCORPORATING SOMATIC EDUCATION INTO THE GENERAL MUSIC CLASSROOM

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By

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A Thesis Submitted to the

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ABSTRACT

This thesis seeks to introduce principles of somatic education to children grades kindergarten through grade five in order to prevent future music-related injury and to promote free, whole-body movement. To do so, the principals of somatic education, specifically those of the Alexander Technique and Body Mapping, were combined with the current general music pedagogies by altering pre-existing lesson plans. Alterations include a variety of methods of integration, including, but not limited to: teaching about and exploring the different parts of the body, understanding the relationships between seemingly unrelated body parts, and engaging in student-led constructive rest in the semi-supine position. Somatic education pairs fluidly with the general music curriculum, as the primary pedagogues already incorporate movement and body awareness into their lessons. By pairing these lessons with an education about the body, students can move in a manner that relies on the skeletal structure rather than muscular effort, thus preventing common pains and music-related performance injuries.

INDEX WORDS : somatic education, general music education, Alexander Technique, Body Mapping

TO DR. ANDRÉE MARTIN

To whom the road to recovery has been replete with thorns and set-backs, yet overshadowed by a blossoming branch, heavy with the fruit of patience and long-suffering. May your burdens be transformed into breakthrough and the gap of your sacrifice be filled with the testament of dozens of music students who have found freedom and ease of movement.

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Introduction

Every human moves with idiosyncrasies, and, according to Dr. Richard Nichols, Chair of Applied Physiology at Georgia Tech University, these idiosyncrasies are rooted in the brain. Research like that of Dr. Nichols has been examined in depth over many years and was inspired in part by John Hughlings Jackson, a nineteenth-century British neurologist who analyzed the seizures of epileptic patients. Jackson's research reveals that anatomical representations of the body are present on the brain's cortical surface. These representations provide the brain with details about parts of the body and their functions. Bodies move voluntarily as the cortical areas communicate with nerves to engage the muscles[1]. William Conable, Alexander Technique teacher and founder of Andover Educators, discovered that these cortical representations also operate at a cognitive level that affects everyday movement.

Conable's theory, developed and discussed in Barbara Conable's *What Every Musician Needs to Know About the Body,* is that each human has a set of "body maps", or personal beliefs about anatomy, which guide movement. Both body maps and cortical representations on the brain are subject to change over time and can be altered through personal experience with the body. Body maps are different from these representations in that cortical representations are an executive function of the brain and are not cognitive. However, the body maps to which William Conable refers are a part of the premotor area of the brain and are involved in cognitive processing. Every person has an idea about how each body part operates, including its size, shape and function. This belief stems from an individual's interpretations of the body's movements and is developed through interaction with each body part through either movement or physical touch.

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[1] Richard Nichols, "Scientific Basis of Body Mapping", *Andover Educators,* (1992, accessed 1 October 2016, http://bodymap.org/main/?p=213).

When one's body map contradicts anatomical truths, the individual moves according to his/her perceptions rather than according to anatomy. Incorrect body maps may result in tense and restricted movement, as well as injury; thus, Conable developed "Body Mapping", a discipline that aims to properly map the size, shape, and function of the different parts of the body in the consciousness of the brain[2]. Changes in cognitive, premotor body maps eventually trickle down into more deep-seated functions of the brain, including the brain's cortical representations, to produce long-lasting changes in movement.

In his article, "Origins and Theory of Mapping", Conable describes an example of an inaccurate body map impeding movement. Several years ago, Conable was asked to help identify the problem with a violin student's bowing: regardless of teacher attempts at instruction, the girl could not bow freely by bending at her elbow. In essence, her arm remained stiff. Conable observed that she appeared to be attempting to bend from a point that was about two inches away from her actual elbow joint. When Conable drew the girl's attention to the true location of the elbow joint, the girl was able to immediately bow in the correct manner. Conable suggests that the girl understood the distance between her gleno-humeral joint and her elbow to be the same distance as when she began playing violin several years before this incident. To bow with free movement, the girl simply needed to be reminded of anatomical truth, which in this case was the "new" and correct location of her elbow joint.[3]

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[2] William Conable. "Origins and Theory of Mapping". *Andover Educators,* (1992, accessed 1 October 2016, http://bodymap.org/main/?p=299).

[3] Ibid.

Body Mapping is one of several disciplines of somatic education, which all seek to increase one's awareness of the body and to move in the most efficient way possible. Other disciplines include the Alexander Technique and the pedagogies of Moshé Feldenkrais, Thomas Hanna, Katy Bowman, and Eric Franklin. Through these methods, many people have experienced relief from backaches, tension headaches, knee problems, and even carpal tunnel syndrome[4]. However, somatic education can benefit musicians specifically; because musicians spend hours each day repeating the same small movements, inefficient movement can easily accumulate into injury. Exposing musicians to efficient movement through body awareness can facilitate musical expression without the distraction of pain and can prevent future injury.

Unfortunately, musicians often reach the point of injury before they discover somatic education. Classes on somatic education, if offered at all, are usually offered to musicians only as early as the university level, when students have been playing their primary instruments for several years. Teaching students about the body from a young age would likely prevent many performance injuries. However, it could also improve the quality of life for all students, regardless of their career paths. Many music educators seek to develop the whole person, understanding that not every general music student will pursue a career in music. These educators teach in such a way that students are equipped for whatever career they choose. Because somatic education promotes efficient movement in everyday activity, lessons learned through somatic education can help not only the performer, but also the businesswoman that sits for hours each day at a desk. The goal is that every student would leave the general music classroom with an awareness of the body and specific tools to move freely and thus prevent injury. This thesis will present various techniques of somatic education and methods of incorporating them into the pre-existing national curriculum for general music education.

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[4] David Garlick, *The Lost Sixth Sense : A Medical Scientist Looks at the Alexander Technique,* (Kensington, N.S.W.: University of New South Wales, 1990), 13.

The core of this thesis is four lesson plans that outline specific methods for incorporating body awareness into the classroom. The author will present pre-existing lessons from the four major pedagogies of general music education (Orff, Kodály, Dalcroze, and Feierabend) and will offer slight alterations which incorporate somatic education into the classroom. The goal is to advocate for change that is accessible to music educators working in the field; rather than offer completely new lesson plans, the author will demonstrate how small changes to the existing curriculum can improve students' body use. These lesson plans can be found in the appendix, which follows the paper.

Background research is presented which outlines the premise of each major pedagogy and explains the lesson plans at the end of the thesis. For each lesson plan, a justification is provided which contextualizes the lessons within more general somatic research from recent years. Additionally, a section entitled, "About the Body" elucidates the function of each major body part and dispels common myths held about the anatomy. This section is vitally important because an awareness of the body begins with an understanding of anatomical truth. Furthermore, "Beyond the Body", explores the relationship between the body and the mind and covers topics such as inhibition, direction, end-gaining, and mindfulness. By including both physical and psychological principles into the lessons, the author hopes to provide a well-rounded approach to incorporating somatic education into the general music classroom.

It is very important that children move freely from a young age.[5] By presenting them with truth, their internal representations of anatomy can potentially be changed to match anatomical truths, allowing them to move with ease and prevent future injury. This thesis will synthesize current findings on somatic education and place them within the framework of the elementary school music classroom. Current research will be presented, as well as practical methods to incorporate this research into the music teacher's daily routine. In so doing, a generation of children will hopefully grow up with an appreciation for the body and ease in its movement.

Beyond the Body

While focus on the body is an important facet of somatic education, the mind is of equal importance. The mind drives movement, which is why F. M. Alexander, founder of The Alexander Technique, espoused the principles of inhibition and direction to accompany somatic transformation. Inhibition can be defined as the split second before an action when the individual can consider his/her thought and choose whether or not to act upon it. According to somatic education, tense and inefficient movement is usually rooted in habit, which means that to move freely, one must choose to reject movements that may feel familiar and right.[6] This rejection is facilitated by lengthening the moment of consideration that occurs before an action. During this time, the individual can choose not to move in the way s/he is tempted to move. F. M. Alexander called this technique “inhibition” and asserted it as one of the fundamental aspects of somatic education.[7]

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[5] Sue Merry and Judith Kleinman, "Edukindness: The Alexander Technique in Education," *Sue Merry,* (2010, accessed 25 February 2017, http://suemerry.vpweb.co.uk/upload/Edukindness%20Download%20V2.pdf), 40.

[6] Jeremy Chance, *Principles of the Alexander Technique: What It Is, How It Works, and What It Can Do for You*, 2nd Ed. (London: Singing Dragon, 2013, eBook Collection (EBSCOhost), EBSCOhost (accessed December 28, 2016)), 40.

Inhibition must be paired with positive, specific instruction, which is why Alexander promoted the concept of “directions”. After one inhibits habitual movement, s/he then provides an alternative to the habitual movement to guide the upcoming action.[8] For example, if a woman is tempted to shorten and tense the muscles of her neck while standing up from a chair, she would take a second to consider her normal way of standing and would then redirect her habits by choosing to lead the movement from her head while lengthening the muscles of her neck. In this way, she has provided a specific alternative to her habit, instead of simply reprimanding herself for tensing the neck. Alexander created the following generic direction that applies to a wide variety of movements: “Let the neck be free so that the head can go forward and up so that the back can lengthen and widen”.[9] In Alexander’s experience, this instruction (or direction) was helpful for preventing excess tension.[10]

Alexander discovered this method of inhibition and direction during his work on his own body. He was a professional actor that experienced difficulties with losing his voice, which catalyzed his discovery of the Alexander Technique. He noticed that he always moved his head into a certain position before speaking, a position which he determined to be the cause of his hoarseness. Alexander spent several months practicing his directions before he attempted to speak again. When he felt as though he was comfortable with the directions, he attempted to speak, only to discover that he returned his head to its habitual position.[11] Through this experience, Alexander discovered his obsession with the end goal, which caused him to neglect and/or minimize the importance of the process leading to that goal. He later termed this phenomenon *end-gaining*. In his situation, Alexander was end-gaining by focusing so strongly on talking that he did not even incorporate the directions which he practiced for months. End-gaining is a common experience for many people. Examples range from small situations, like rising with tension from a chair in order to answer the door, to extreme examples, such as altering students' test answers in order to secure higher school ratings. Alexander purported that neglecting the process results in a lower quality product. Instead of end-gaining, humans should be concerned with the "means whereby", the journey that leads to the product, and should value it even over the end goal.[12]

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[7] Frank Pierce Jones, *Body Awareness in Action* (New York: Schocken Books, 1976), 25.

[8] Ibid., 21.

[9] Imogen Ragone, “Alexander Technique Directions—What are They?” (*Body Intelligence: Alexander Techniuqes with Imogen Ragone,* 23 August 2012, accessed 28 December 2016, http://imogenragone.com/alexander-technique-directions-what-are-they/).

[10] Lesley Alderman, “Sit Up Straight. Your Back Thanks You,” (*The New York Times,* 24 July 2011, accessed 1 May 2017, http://www.nytimes.com/2011/06/25/health/25consumer.html).

To experience the somatic implications of end-gaining, it may be helpful to role-play the following situations:

Rise from your chair and walk around the room, in your normal way. Notice your pace, your direction, and the size of your steps. Where are you going? Are you in a hurry? Notice your body. Are you holding tension anywhere? Bring awareness to your body without passing judgement, simply noticing its condition. Notice your neck, your arms, your front, your back, your glutes, your thighs, your calves, and your feet. Notice your fingers and your toes. Are they free? Are you clenching them?

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[11] Jeremy Chance, *Principles,* 29-46.

[12] Ibid., 44-47.

Now, imagine that you are in the countryside with rolling green hills and a blue sky. You can feel the sun on your face after a day in the office, and you can hear the birds singing. You are on a walk for leisure, to reward yourself for a day of hard work. Notice the same things about your body: How fast are you walking, and where are you going? Are you in a hurry? How big are your steps? Notice your body. Are you holding tension anywhere? Bring awareness to your body without passing judgement, simply noticing its condition. Notice your neck, your arms, your front, your back, your glutes, your thighs, your calves, and your feet. Notice your fingers and your toes. Are they free? Are you clenching them?

Now, imagine that you are in a big city, and that you are on your way to a stressful day at work. You have your briefcase in one hand and your bus pass in the other. You look down at your watch, and you realize that you are running late! The bus comes to the stop in one minute, and you are still several feet away! Run so that you can make it onto the crowded bus! Hurry! As you run to catch the bus, notice your body. How fast are you moving, and where are you going? Are you in a hurry? How big are your steps? Notice your body. Are you holding tension anywhere? Notice your neck, your arms, your front, your back, your glutes, your thighs, your calves, and your feet. Notice your fingers and your toes. Are they free? Are you clenching them? Are you attempting to make up for lost time by tensing more of your body? How does your body feel different from when you were walking in the countryside?

Now, run to catch the bus again, but this time, can you allow your body to be free just like it was when you were strolling through the countryside? Try to speed up your pace but maintain your peace of mind and your free movement. Run to the bus, but do not mentally rush. How is this experience different from the first time you ran to the bus?

I first experienced this exercise with Korina Biggs at the 2016 Alexander Technique International Conference in Sussex, UK and discovered that I often tense parts of my body in an effort to move faster. I also noticed that there was an underlying sense of anxiety while I was pretending to catch the bus, and this anxiety contributed to a greater degree of muscular tension. I was surprised to realize that I could move my body at a quicker pace while staying internally peaceful, and this internal peace helped me to move more efficiently.

This exercise is a powerful example of how fixation on a goal can frequently exhibit itself through tension in the body. The activity also demonstrates that humans can increase their pace to catch a bus or make a deadline without feeling internally rushed, and we should seek to quiet this internal rush because this feeling that there is never enough time results in physical tension. By employing methods of the means whereby, we become mindful of the details in the process of achievement and learn to release our grip on the end goal, which helps to bring peace in the midst of rushing. Fostering awareness of the means whereby is part of being a mindful person, which is a separate, but related, practice to practicing the "means whereby."

The main premise of mindfulness is that individuals are often not aware of the present moment and their experience within the present moment. Instead, they are wrapped up in their thoughts on the past or future, the judgement about the current situation, or their urge to multi-task. While eating a piece of cake at a banquet, for example, many people may look around the room to find a friend, judge themselves for eating dessert, or think through their to-do list for the next work day. In this instance, they do not actually focus on the flavors of the cake, the texture of the cake in their mouth, or their general experience of eating that slice of cake. They are, in other words, not mindful of their current experience. The problem with a lack of mindfulness is that people are so mentally absorbed with unrelated thoughts that they are not involved in the present moment. This lack of involvement creates a need to fill in the details of the current situation, which they do using assumptions developed through an absorption with the either the future or the past, their personal problems, or their assumptions of how people will react to them. Over time, people that do not practice mindfulness may notice that they do not feel invested in their relationships or careers.

A related facet of the lack of mindfulness is the temptation to make automatic decisions instead of decisions that are considered and chosen. When people begin to feel rushed, they often do not feel that they have the time to think through their actions; thus, they act haphazardly. Mindfulness can teach individuals to train their thoughts so that they can focus on one situation at a time, placing that situation within the context of their current existence. Mindful people focus on something that they have chosen to think about and are not controlled or manipulated by their thoughts.[13] Even when their focus sways away from the topic at hand, they can quickly bring their attention back to what they have decided to be priority.[14]

In regards to somatic education, it is apparent, as Alexander discovered, that people often operate automatically, without allowing themselves to be present in the moment and to understand the implications of their decisions. Through inhibition, direction, and mindfulness, students of somatic education have a new opportunity to be aware of their current positions, their urges, their habits, and their options for movement. They are allowed to internally slow down and consider the choices they might make with their bodies.

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[13] Cindy Sanderson, “Mindfulness for Clients, their Friends, and Family Members”, (*University at Buffalo School of Social Work,* Accessed 28 December 2016, https://socialwork.buffalo.edu/content/dam/socialwork/home/self-care-kit/exercises/mindfulness.pdf).

[14] Ibid.

Practically speaking, students may experience mindfulness by noticing what sounds they hear in the room, what they smell, what they see in their peripheries, and how their clothes feel on their bodies. A particularly important mindfulness practice is to notice the emotions one is feeling and to consider them without passing judgement. The body and the emotions are strongly intertwined, and emotional turmoil will likely exhibit itself through physical tension. For this reason, it is important for students to be aware of what is happening internally so that they can then direct themselves towards free movement.[15]

Teachers and students may find that incorporating mindfulness into the classroom produces results beyond somatic transformation. Mindfulness can equip the teacher to interact with students without preconceived notions about their personalities or ability-levels and can help teachers to recognize their students' specific needs. Also, mindfulness teaches students how to endure academic challenges; rather than reprimanding him/herself for being "bad" at a task or quitting because s/he does not understand the concept at hand, the student can learn to notice the details of his/her learning process, identifying exactly which step is difficult and what is difficult about it. S/he can then use specific language to express to the teacher discoveries about the difficulty, and the teacher can tailor instruction to help the student overcome that academic challenge. The student then understands how to navigate the choppy waters of confusion and learns specific skills for enduring through academic challenges. How does this affect the body? Students regularly respond to academic stress by holding physical tension.[16] Teaching students how to learn difficult concepts will minimize this stress on the body.

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[15] Garlick, *The Lost Sixth Sense,* 47-51.

About the Body

In order to incorporate somatic education into the music classroom, it is important to understand the correct function, size, and location of each part of the body. The following sections explain each main section of the body and address common misconceptions related to them.

The Skull and Neck

The head and neck are of primary importance in somatic education, for freedom in the neck results in freedom throughout the rest of the body.[17] The head rests on the spine at a joint known as the *atlanto-occipital joint*, where the top of the spine (the *atlas*) meets the base of the skull (the *occiput*). The weight of the skull, ten pounds total, is upheld at this joint, which is located halfway between the ears.[18] Many people throw the weight of their skull either in front of or behind the AO joint, circumventing the skeleton's natural method of weight distribution and causing the muscles of the neck to tense in order to hold the weight of the head.[19] The neck's state of freedom determines the freedom in the rest of the body, so if the neck muscles are tense, the rest of the body is tense. For this reason, it is important for people to experience the movement of the skull at the AO joint.

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[16] Peter Nobes, "The Alexander Technique: Posture training? Or mankind's next evolutionary step?" (presentation at the Annual Meeting of Alexander Technique International, Ardingly College, Sussex, UK, 25 October 2016).

[17] Pedro de Alcantara, *Indirect Procedures,* 1997, (Reprint, Oxford: Clarendon Press, 2009), 26-27.

[18] Marshall Brain, "How Much Does the Human Head Actually Weigh?" (*Brainstuff: How Stuff Works,* 27 July 2009, accessed 28 December 2016, http://www.brainstuffshow.com/blogs/how-much-does-the-human-head-actually-weigh.htm).

[19] Barbara and William Conable, *How to Learn the Alexander Technique: A Manual for Students,* 3rd ed., rev. ed., (Portland, OR: Andover Press, 1995), 84.

To find the AO joint, there are three methods. Firstly, one can bob his/her head like a doggy bobble head on a dashboard, focusing attention on the area between the ears. The individual may notice that the rest of the spine does not have to move in order to move at the AO joint. Secondly, the individual can place one thumb under the front teeth and the other hand on the lower back of the skull, using the thumb under the teeth to move the head up and down and thus sense movement at the AO joint. Lastly, the individual can place a thumb in each ear and wrap his/her pointer fingers around the nose to touch and then wrap the pointer fingers around the back of the head to touch, noticing that the distance between the ears and the front of the head is the same distance as between the ears and the back of the head.[20] Many people perceive incorrectly that the distance between the AO joint is much closer to the back of the head than to the front, causing skulls to be “back heavy”. Once a person has perceived the movement of the AO joint, s/he can experiment with placing the weight of the skull increasingly backwards and then forwards, noticing at what point the head is “back heavy”, “face heavy”, and perfectly balanced. Experiencing balance in the AO joint is the first step to experiencing freedom in the rest of the body.[21]

Most people do not even know that the AO joint exists, but they do know that the jaw exists. Nevertheless, the jaw’s location is probably the most common misconception about the skull; some people believe that there are two “jaws”, an upper and a lower one, and some people believe that the jaw joint is where the head seems to meet the neck.[22] In reality, there is only one jaw that connects to the skull. This jaw anchors the lower teeth, while the skull anchors the top teeth. The jaw joint (or *temporomandibular joint*) is located right in front of the center of the ears.[23] To find the joint, place two fingers in front of either ear and move the jaw open and closed. The movement felt near the ears signals the true location of the jaw. Freedom in the jaw depends on freedom of the neck, so as the muscles of the neck are released, ease is returned to the jaw.

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[20] Conable, *What Every Musician,* 6.

[21] Pedro de Alcantara, *Indirect Procedures,* 1997, (Reprint, Oxford: Clarendon Press, 2009), 26-27.

[22] Barbara and William Conable, *How to Learn the Alexander Technique: A Manual for Students,* 3rd ed., rev. ed., (Portland, OR: Andover Press, 1995), 83.

The Spine

The spine makes up a huge portion of the skeletal system and facilitates every movement. When most people think of the spine, they believe that it is located at the very back of the body, because they feel the bumps of bones called the *processes* on their backs.[24] However, the processes are simply the bones that surround the spinal cord and do not bear weight. The *vertebrae* bear the majority of the body's weight and are located more towards the center of the body. These strong vertebrae provide a core around which the body is organized. When people perceive the processes as being the only portion of the spine, they often throw their weight backwards.[25] However, the processes are not designed to carry weight, so throwing weight backwards can stress them and thus stress the spinal cord, as well as other associated nerves (such as the sciatic nerve). To prevent the pain of stressing important nerves, it is important to remember that the vertebrae act like the core of an apple in the center of the body and provide a strong foundation for movement.[26]

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[23] Ibid., 93.

[24] Barbara and William Conable, *How to Learn the Alexander Technique: A Manual for Students,* 3rd ed., rev. ed., (Portland, OR: Andover Press, 1995), 88.

[25] Ibid., 43.

Additionally, the spine naturally consists of four beautiful curves: the *cervical curve*, the *thoracic curve*, the *lumbar curve*, and the curve of the *sacrum* and *tailbone*.[27] The spine is *not* meant to be completely straightened, as straightening the spine hinders movement. Rather, the spine has several joints that allow it the ability to move in multiple directions, including up and down, side to side, and even twisting. Even when resting, the spine does not stay completely stationary, as the act of breathing causes it to lengthen and gather with each inhalation and exhalation.

Perhaps one of the biggest enemies to somatic education is the idea of "proper posture". When instructed to stand with good posture, people generally straighten their spines and stiffen their back muscles, throwing weight backwards and stressing their processes. Instead of straightening, the spine should be freed to exist in its natural positions. In unhindered movement, the spine shifts constantly as the body moves; however, chronic muscular tension often prevents the spine from its full potential for freedom. Buoyancy of the spine is restored as muscular strain against the spine is released.

All movement of the body is instigated by the head.[28] For example, when a cat jumps on the windowsill, its head leads the movement and its body follows. Humans move in a similar manner, with the head leading and every consecutive vertebrae moving accordingly.[29] This is the main reason why it is so important to free the muscles of the neck, because tense neck muscles prevent the head from gently moving the spine in motion. Free spines are distinguished by four characteristics: the head leading in movement; the movement traveling down each vertebra in sequence; the effort of movement being distributed equally among all the vertebrae and not concentrated in one area; and the spine being allowed to lengthen and gather throughout the course of movement.[30] Free spines that move in this manner set the stage for ease throughout the rest of the body.

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[26] Ibid., 12-13.

[27] Calais-Germain, *Anatomy in Movement,* 34

[28] Pedro de Alcantara, *Indirect Procedures,* 1997, (Reprint, Oxford: Clarendon Press, 2009), 26-27.

[29] Ibid.

The Arm Structure

Some may believe that the arms begin at the shoulder's ball and socket joint (known as the *gleno-humeral joint*).[31] However, the arm structure actually starts where the clavicle meets the sternum on the front of the torso (the *sterno-clavicular joint*) and consists of the *clavicle*, *scapula* (shoulder blade), *humerus* (upper arm), *ulna/radius* (forearm), wrist, and hand. Most people do not know that the sterno-clavicular joint is the only joint at which the arm structure is connected to the rest of the body [See Appendix E, Figure 6].[32] In other words, all of the bones previously listed float on top of the ribcage and are connected to the body only at the SC joint! Thus, the shoulders and arms are not connected to the spine, the skull, or the ribs, despite common perception.[33]

Because the shoulder blades float on top of the ribcage, they are very mobile structures, allowing the individual to move the shoulder blades forward and backward, up and down, and swing them in and away from the body.[34] The clavicle meets the scapula (shoulder blade) to create the girdle that facilitates this movement.[35] The commonly known ball and socket joint is actually a part of the scapula, which means that the rest of the arm structure is rooted in the mobility of the shoulder blades as the arms rest on top of the ribs [See Appendix E, figure 7]. There is a sizable space between the arm structure and the rib cage that facilitates full rib excursion during breathing.[36]

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[30] Conable, *What Every Musician,* 19.

[31] Barbara and William Conable, *How to Learn the Alexander Technique,* 91-92.

[32] Calais-Germain, *Anatomy of Movement,* 102.

[33] Conable, *What Every Musician,* 55.

To sense this gap in the armpits, rotate the upper arm so that hand and elbow stay aligned with each other during rotation. Place the opposite hand at the gleno-humeral joint and feel where the movement is happening. Next, place your hand under your armpit at the side of your body and feel the location of the rib cage. Notice the distance between the movement in the gleno-humeral joint and the side of the rib cage. Feel the gap that exists under the armpit.[37] Some people collapse their arm structure on top of the rib cage, which causes squeezing under the arms. Important nerves run under the clavicle and down the rest of the arm, pumping blood for sensation in the extremities. Collapsing or “pulling down” on the clavicle can cause tingling in the arms.[38]

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[34] Ibid., 54.

[35] Calais-Germain, *Anatomy of Movement,* 110.

[36] Conable, *What Every Musician,* 55.

[37] Ibid., 56.

[38] Ibid., 70.

The next important facet of the arm structure is the elbow. Many people believe that the elbow's main function is to bend.[39] The elbow does bend, but it also rotates [See Appendix E, figure 8]. In fact, there are two bones in the forearm: the ulna and the radius. When the arm is supinated, with the palm facing upwards, these two bones are parallel; the ulna is the bone on the pinky side of the hand and the radius is the bone on the thumb side of the hand. However, when the arm is pronated, with the palm facing downwards, the radius crosses over the ulna, orienting the arm around the pinky [See Appendix E, figure 9].[40] This is a beautiful design that allows stability in the forearm during rotation. However, many people perceive that the arm pronates by moving at the wrist, an action that is physically impossible.[41] To experience the impossibility of pronating from the wrist, one can simply place the palm upwards in front of the body and gently wrap the non-dominant hand around the wrist of the extended arm, attempting to pronate the wrist without moving anything below the non-dominant hand. It is impossible. Now, the individual can place the non-dominant hand on the elbow of the extended arm and instigate pronation from there. This is free movement.

The next area of the arm structure is the wrist. The wrist is commonly believed to be a hinge, which it is not. Instead, the wrist is comprised of eight small bones [See Appendix E, figure 10]. These bones cooperate to allow many types of movement in the wrist, including moving the hand from left to right and up and down, as well as crunching the hand together and expanding it outwards.[42] Unlike the knee, which is basically a space between bones, the wrist is an actual object (eight objects, to be precise).[43] Upon learning about the bones of the wrist, individuals may find that there are many more options for moving their wrist than previously perceived.

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[39] Barbara and William Conable, *How to Learn the Alexander Technique,* 92.

[40] Ibid., 59.

[41] Barbara and William Conable, *How to Learn the Alexander Technique,* 93.

[42] Ibid., 66

Finally, the arm structure ends with the hands. In the hands, there are four fingers and a thumb. Each finger has four bones, including the three segments that visibly extend from the palm, and the long bone that runs from the biggest knuckle down to the wrist, which is often omitted in body maps of the fingers. The thumb has three bones, with the third bone extending all the way to the wrist, making the thumb opposable. Notably, the thumb moves from this lowest location, which allows the thumb to reach over and touch the other fingers. The bones of the hand should be mapped from the back of the hand instead of the palm, because the creases present at the top of the palm occur halfway through a phalange bone,[44] rather than at a joint.[45] Mapping the bones of the hand will bring freedom into everyday activities, such as opening jars and typing.

The Pelvis and Leg Structure

The spine connects to the pelvis at the *lumbosacral* joint, where the spine meets the pelvis. Specifically, the lumbar spine connects to the *sacrum*, which is one of the pelvis's main bones. The pelvis consists of four bones: the *sacrum*, the *coccyx* (tailbone), and two *illiums* (hipbones).[46] When people conceive of the hips, they often think of the *iliac crest*, which is the bumpy bone on either side of the body at the bottom of the torso. People also believe that the skeleton contains a waist, which is often placed around the same area as the "hips."[47] However, anatomically there is no such thing as a waist, because no movement occurs at the iliac crest; the iliac crest is simply the top of the hipbones of the pelvis. Real movement occurs at the sideward-facing hip joints [See Appendix E, figure 11].

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[43] Ibid., 64.

[44] Calais-Germain, *Anatomy of Movement,* 159.

[45] Conable, *What Every Musician,* 68.

[46] Calais-Germain, *Anatomy of Movement,* 43.

The sideward-facing hip joints exist where the thighbones meet the pelvis. They are located on the outside of the butterfly-shaped portion of the pelvis and are a ball and socket joint. The hip joints are located on the side so that the human does not need sit on his/her legs when sitting in a chair. Many people perceive the hip joints to be either too high (around the iliac crest) or to be at the bottom of the pelvis. Neither perception is accurate. Sensing the hip joints can be challenging, since the area contains so many muscles, but to try, one can place his/her heel on the ground in front of the body and place a hand on the outside of the same leg, slightly above the bottom of the buttocks. When the leg is rotated inwards and outwards, the individual will be able to feel a movement at the side of the body. This part of the body is called the *greater trochanter* and is not technically the hip joint. The real hip joint is located diagonally upwards and inwards from the greater trochanter.[48] Sensing the greater trochanter, however, helps to understand how far down the hip joints actually are.

When standing, weight is distributed through the pelvis and down into the thighbones and leg structure. When sitting, weight is not distributed through the thighbones, but through the sit bones. The sit bones allow the weight of the body to be distributed through the pelvis into the chair. It is very important to distribute weight through the sit bones instead of tucking the pelvis and straining the muscles around the tailbone. In order to sense the sit bones, one can sit on a hard surface and rock left to right. The individual should be able to feel the two bumps that touch the chair. These are the sit bones. If this method does not work, s/he can also sit on the hands to feel them.

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[47] Barbara and William Conable, *How to Learn the Alexander Technique,* 45-46.

[48] Conable, *What Every Musician,* 24.

The thighbone extends from the sideward-facing hip joints to the knee. Contrary to popular belief, the knee is not an actual object. Instead, it is the space between the femur and the bones of the lower leg. As many people point out, there is a kneecap (the *patella*).[49] However, the knee cap floats on the surface in order to protect the knee and is located slightly higher than the location of the actual joint [See Appendix E, figure 12].[50] In mapping the knee, it is sometimes helpful to note its three possible positions: locked, balanced, and bent [see Appendix E, figure 14]. To sense a balanced knee joint, one can sit on a chair and rub the shins, taking care to remember that a balanced leg bears weight through the center of the foot, instead of the back of the foot. The person can then stand up from the chair while rubbing the thumbs from the knee to the ankle, stopping when the knee is perfectly balanced over the center of the foot. If done correctly, this experience demonstrates a balanced knee that is neither locked nor bent, but free.

The next major area of the leg structure is the ankle. If most people were to point to their ankles, they would point to the big, bony area that protrudes on either side of the lower leg.[51] In my experience, this belief is so widely held that most people have to be proven otherwise. The actual ankle is located a little farther down, where the *tibia* and *fibula* meet the bones of the foot. Weight is distributed through the lower leg, into the arch of the foot, and outwards through the foot's small bones. The arch of the foot reaches from heel to ball of the foot, and the ankle is located in the center of this arch [See Appendix E, figure 13]. As people drive cars, play organs, or pedal timpani, they may perceive that the foot is rotating at the heel. Though the foot is resting on the ground, it is actually pivoting from the ankle in the center of the arch.[52]

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[49] Calais-Germain, *Anatomy of Movement,* 227.

[50] Conable, *What Every Musician,* 30.

[51] Barbara and William Conable, *How to Learn the Alexander Technique,* 91.

The pelvis, sideward-facing hip joints, knee, lower leg, ankle, and foot work together to carry weight into the ground. When the bony structure is aligned and balanced, this weight dispersal is seamless. One opponent to freedom in the leg structure is muscular tension in the buttocks. Muscles fan out from the sacrum and are intended to be long and wide. However, tension shortens these muscles. These glute muscles are connected to the thigh muscles, so as they are tensed, the thighs, lower legs, and feet are tensed as well. This type of tension causes the thighbones to rotate perpetually outward, decreasing the femur's inward rotation. Releasing the muscles of the glutes will feel like a downward release and will likely relieve some lower back pain, protecting the leg structure from muscular tension.[53]

Breathing

A critical area of body awareness, especially for musicians, is breathing. In the midst of contradicting pedagogies on the proper inhalation and breath support, it is important to examine anatomy and the body's movement during respiration. The torso contains three sections: the *thoracic cavity,* the *abdominal cavity,* and the *pelvic cavity.* The lungs are located in the thoracic cavity, which is located in the top third of the torso and ends right below the sternum. Many people are surprised to discover just how high the lungs extend; one can place a finger at the soft tissue right above the clavicle, and the lungs lie under this skin.[54] The lungs extend from here to halfway through the ribs, where the diaphragm separates the thoracic cavity from the abdominal cavity.[55] The abdominal cavity contains the *viscera*, or the guts, and is devoted mainly to digestion.[56] It is located in the bottom half of the ribs and the middle third of the torso. Below the abdominal cavity is the pelvic cavity, which exists within the interior of the pelvis, where a network of muscles fan over the pelvic floor.[57] All three cavities cooperate to facilitate breathing.

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[52] Ibid., 33.

[53] Ibid., 35.

The "rib cage", as it is called, expands between the thoracic and abdominal cavities and contains twenty-four ribs, twelve on each side. Each rib connects to a thoracic vertebra at a process on the back of the spine and to squishy cartilage on the front of the rib cage. The only exceptions are the lower four ribs (two on each side), which are not connected to the cartilage and are called the *floating ribs*.[58] As the body inhales, the ribs move gently at these joints with the thoracic vertebrae. The joints and cartilage make the rib cage a mobile structure that is constantly moving, which is why the metaphor of the area being called a "rib cage", normally a rigid structure meant to keep scary animals safely away, is not helpful for free breathing.

When an individual breathes, a wave of movement is sent throughout the whole body as the spine lengthens and gathers. During inhalation, the spine gathers slightly, bringing the head downwards, and during exhalation, the spine lengthens, returning the head to its original position. This movement of the spine is naturally occurring and massages the organs of the viscera.

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[54] Bryan Catlin and John Lyons, "Chapter 22: The pleurae and lungs", *Basic Human Anatomy,* ed. Rand Swenson, (2008, accessed 28 December 2016. https://www.dartmouth.edu/~humananatomy/part_4/chapter_22.htm).

[55] Ibid., 76.

[56] Ibid., 77.

[57] Ibid., 78.

[58] Ibid., 83.

However, some people have mapped the opposite movement, believing that the spine lengthens on the inhale and gathers on the exhale. Usually, these people tense their necks or lift their sternums during the inhalation, subconsciously convincing themselves of this mapping. Regardless of this mismapping, the spine continues to gather on the inhale and lengthen on the exhale.[59]

As the spine gathers during inhalation, the ribs move up and out, causing the thoracic cavity to widen. The diaphragm, a dome-shaped muscle between the thoracic and abdominal cavities, flattens slightly, pushing down on the abdominal cavity, which pushes down on the pelvic cavity [see Appendix E, figures 4 and 5 for charts of movement during the breath.] Contrary to popular belief, no air moves below the diaphragm. What happens, however, is that the movement of the lungs is causing a ripple effect that presses the viscera against the abdominal wall and presses the muscles of the pelvic floor downward.[60] All of this movement is undone during exhalation, when the spine lengthens, the diaphragm returns to its resting position, the contents of the abdominal and pelvic cavities move upwards, and the ribs move downwards and inwards. Though there is beautiful movement in the "belly" area during respiration, many people mis-map the movement as being the actual air traveling to this region. Traditional breathing metaphors also emphasize belly movement so much that the movement of the lungs is de-emphasized, which might lead some people to constrict the thoracic cavity. The thoracic, abdominal, and pelvic areas all move during respiration. The movement of breathing, when freely allowed, is a gentle, relaxing sensation which flows throughout the entire body. It is facilitated by a free arm structure that rests on top of the rib cage, as well as a relaxed abdominal wall and pelvic floor.

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[59] Ibid., 82.

[60] Ibid., 86.

Tension in any of these areas impedes what is called the *full excursion,* or the complete cycle of outward and inward movement in the ribs specifically, and temporarily lowers breathing capacity.[61]

Body Relationships

Although it is helpful to separate each portion of the body in order to understand it better, none of the body parts function in isolation. Rather, they are interconnected, and ease of movement in one area of the body promotes freedom in the rest of the body. The foundation for this ease begins in the neck muscles, since all movement, as previously mentioned, is led with the head. From the neck, there is a chain of freedom. Freedom in the front and back of the torso depends on a free neck, and free arms depend on a free torso. Thus, a free neck is as integral to a free torso as is freedom in the arm structure. Because the arm structure floats on top of the ribcage, free breathing also depends on free arms, since an arm structure that places pressure on the ribs hinders full excursion. In following this trend, because free arms depend on a free neck, free breathing also depends on a free neck. Free legs also depend on free torsos (and thus necks), since muscles connect the legs to the torso.[62] Therefore, tension in one area of the body may not be limited to that localized area; instead, tension elsewhere may be hindering movement in another location. For example, ruling out a medical problem, a horn player who experiences nerve tingling in the right arm may not have a problem only with the forearm, but with clavicle pull-down, placing strain on the nerves which run under the clavicle and through the right arm. To remedy the problem, the horn player could map the arm structure and the orientation of the forearm correctly, making an effort to understand the arm's relationship to the clavicle. Considering the rest of the body will help this musician in the quest for muscular freedom. Hence, the incorporation of somatic education into the general music classroom should place individual body parts within the context of the whole body.

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[61] Ibid., 83-87.

[62] Conable, *What Every Musician,* 14-17.

Explanation and Justification of Lesson Plans

The previous chapter provides the framework to understand the core section of this thesis, the compilation of lesson plans intended to be used in the general music classroom. With these lesson plans, more abstract ideas about somatic education are delineated into practical methods of incorporation for the elementary music teacher. I have chosen to focus on the four major pedagogies of general music (Orff, Kodály, Dalcroze, and Feierabend), selecting one lesson plan for each pedagogy that is representative of that method's style of teaching.

The lesson plans themselves were written by veteran teachers in the field and are presented mostly unaltered from their original forms. However, I have streamlined the lesson plans into a common format, which identifies the target grade level, the learning objective, the materials needed, the Georgia Performance Standards used, and the procedures of the lesson. All changes to the original lessons have been put in italics. These lesson plans can be found in the appendix at the end of this thesis; however, a prose explanation and justification for each lesson plan will also be presented here under the heading of the appropriate pedagogy. In this section, I will elaborate on the concise directions present in the lesson plans and explain why the alterations were chosen and how they fit into the overarching context of somatic education.

Orff

The Orff Schulwerk method of instruction was developed by Carl Orff in the early twentieth century.[63] He believed that music consisted of three principles, which he identified as *elemental*: music, movement, and speech. Orff noticed that children usually express themselves using all three actions; a child usually sways while singing or may spontaneously sing while walking down the street. Thus, Orff utilized chant, song, and rhythm into his lessons. He believed that musicality should be developed in children from a young age and sought to strengthen the most basic musical ideas in students before beginning them on more complicated instruments, such as the piano.[64]

In 1928, K. Maendler developed a line of percussion instruments under the direction of Carl Orff which would allow children to play more simplified instruments. These "Orff percussion", as they are called, were modeled after a wooden African instrument and consist of diatonic bars without any chromatics. Maendler created the instruments with removable bars so that the Orff teacher could further simplify the lesson by removing the notes not used in the given song or arrangement.[65] Orff Schulwerk lessons utilize Orff percussion, which includes soprano, alto, and bass xylophones; metallophones; and glockenspiels.[66]

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[63] Anne Power, "Methodologies and Approaches: The Orff Approach," (*Music Australia.* Accessed 28 December 2016, https://musicaustralia.org.au/discover/music-education/music-education-methodologies-approaches/the-orff-approach/.)

[64] Beth Landis and Polly Carder, *The Eclectic Curriculum in American Music Education: Contributions of Dalcroze, Kodaly, and Orf,. (*Washington: Music Educators National Conference, 1972), 71-74.

[65] "Orff Instruments," *Classics for Kids, (*Accessed 28 December 2016, https://www.classicsforkids.com/teachers/orffinstruments.asp)

[66] Ibid.

Orff lessons are distinguished by the use of Orff percussion and simple songs derived from the students' home culture. The melodies are often pentatonic, and improvisation is encouraged throughout the entire lesson. A stereotypical Orff lesson provides provisions for improvisation and then uses student improvisation as the basis for an Orff arrangement, where students will play ostinati, repeating rhythmic patterns, and Borduns, patterns of open fifths, to accompany either a folk song or a chant.[67]

Additionally, the Orff Schulwerk method incorporates creative movement into its lessons. Orff believed that students respond to music through movement and that they should be given the space to explore what their body can do. As students become more familiar with their bodies, movement is used to demonstrate musical concepts, such as form or style, and is used as an assessment tool to demonstrate whether or not students have internalized the musical concept at hand.[68]

Appendix A: Orff Lesson Plan

The first lesson features Orff Percussion and was written by Brian Crisp,[69] educational consultant and founder of *Consulting + Coaching* and lecturer of Orff Schulwerk at the University of Kentucky.[70] This lesson uses the following poem as a basis for musical exploration:

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[67] Ibid., 71-78.

[68] Thompson-Barthwell, Judith, "Why Creative Movement in Music Class?" (*Teaching with Orff,* 12 October 2016, accessed 28 December 2016, http://teachingwithorff.com/why-creative-movement/).

[69] Brian Crisp, "Exploring Our Roots, Expanding Our Future: Lesson 2," (*Teaching with Orff,* 31 May 2013, accessed 28 December 2016, http://teachingwithorff.com/exploring-our-roots-expanding-our-future-lesson-2/).

[70] "Workshop with Brian Crisp!", *Mountain Laurel American Orff Schulwerk Association*, (last modified 29 March 2011, http://mountainlaurelaosa.blogspot.com/2011/03/workshop-with-brian-crisp.html).

Wash, Wipe
Ring the bell for tea, please
Wash, Wipe
Ring the bell for tea.

To begin, students chant the poem several times while mirroring the teacher's gestures for the words *wash, wipe, ring,* and *tea.* Students then tap the rhythm of the words on their knees before moving to the barred instruments. The sections of the poem are associated with notes on the Orff percussion: *Wash, Wipe* is played on high D and E, and *Ring the bell for tea, (please)* is played on notes A and B. After students can play these sections proficiently on the barred instruments, they each improvise a melody for the B section of the poem (*Ring the bell for tea, please).* One student's improvisation is selected as the new melody for the B section, and the A and B sections are layered on top of a bordun, or open fifth, on bass xylophone, a melodic ostinato, or repeating pattern, on glockenspiel, and interjections of the Chinese bell. Though improvisation is a large part of this lesson, the final product may look something like the following excerpt. I have notated the words associated with the rhythms under the soprano xylophone part.:

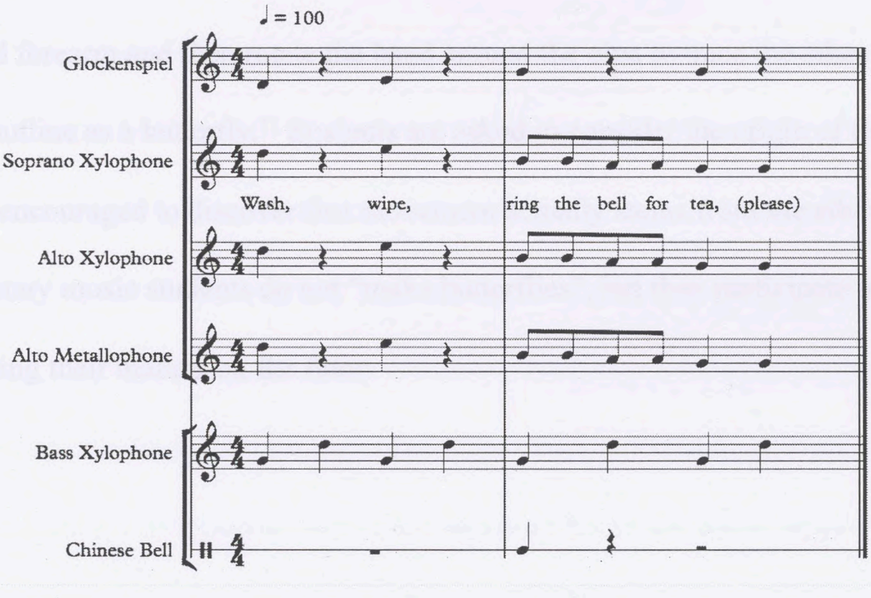
♩ = 100
Glockenspiel
Soprano Xylophone
Wash,
wipe,
ring the bell for tea, (please)
Alto Xylophone
Alto Metallophone
Bass Xylophone
Chinese Bell

Figure 1: Orff Arrangement excerpt

My alterations for this lesson plan targeted mallet technique. Proper technique is vital to playing Off instruments, so it is important that students learn how to properly hold their mallets and strike the bars correctly. I use mallet technique as a vehicle to teach important somatic lessons, including orientation of the forearm around the ulna; rotation of the forearm as instigated at the elbow; the full range of motion of the sterno-clavicular joint, elbow, and wrist; awareness of an object's actual weight; and full-body awareness during activities focused on localized movement.

During the first alteration, students hold the mallet in their dominant hand and rotate their forearm on the floor, alternating between the palm facing the floor and the palm facing the ceiling. This rotation happens to the beat of the poem so that students can internalize the pulse. From a somatic perspective, this activity seeks to help students experience that the forearm is not actually oriented around the thumb; it is actually oriented around the pinky and ulna. Free movement in the forearm must exist around this axis. This mallet version of ulnar rotation is an adapted version of Barbara Conable's "Making Butterflies", in which young piano students trace one side of their hand and forearm and then rotate the hand around the ulna to trace the other side before coloring the outline as a butterfly.[71] Students are asked to consider the origin of the arm's movement and are encouraged to discover that movement actually stems from the elbow and not the wrist. Elementary music students do not "make butterflies", but they participate in a similar activity by rotating their mallets on the floor.

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[71] Conable, *What Every Musician,* 60-61.

The second alteration is an activity in which the students grasp their mallets, beginning with their arms at a twenty-degree angle behind their bodies and bring their mallets in a full circle behind, above, and in front of them, where the mallet touches the floor. When the mallet makes contact with the ground, the students reverse the previous action, returning their mallet to its original position behind the body. Students are invited to palpate their sterno-clavicular joint with the opposite hand to feel how the clavicle moves as the arm rotates in a full circle. The purpose of this activity is to not only explore the arm's full range of motion, but to introduce the concept of small parts of the body working within the context of whole-body movement.

Next, students are asked to place their forearm in front of them, parallel to the floor. A similar rebound exercise is completed by bringing the mallet from this parallel position, to the floor, and back up to parallel. During this time, students are encouraged to be mindful of their elbow joint and move only from there. They can also explore other stick heights, as long as they return to their original mallet position. This exercise not only brings awareness to the elbow, but it introduces the percussion technique of returning the mallet to its starting position when striking an instrument. The same exercise is repeated with the wrist, the main origin of mallet movement in proper mallet technique.

Next, students are asked to hold one mallet in their hands and sense how heavy it actually is. As they feel the weight of the mallet, they are asked to think of an object of similar weight and are encouraged to explore how much effort is actually necessary to hold the mallet. It is possible that they will drop mallets as they are experimenting, which is perfectly acceptable. According to David Garlick, there are specialized cells in the motor cortex of the brain which connect to the nerves that control the muscles of the hand. These cells help the brain to discern the level of fatigue in the hand's muscles. As fatigue increases, the brain instructs the muscles of the hand to exert more and more effort. Eventually, the level of effort exceeds the level of effort necessary for the task. Over time, this over-exertion creates cycle of unhealthy tension that can lead to injury.[72] Students need to learn that there is a certain level of required effort for each task, and utilizing more effort than is necessary does not help, but actually impedes the task at hand. If students grip the mallet with a "death grip", they will not be able to play smoothly or briskly, since their muscles are occupied with tension and are not available for movement. Thus, they are encouraged to feel the actual weight of the mallet.

The last adaptation appears somewhat unexpectedly while students are performing the B section of the poem. At this point, the teacher encourages the students to draw their attention to their legs. The teacher asks some probing questions, such as: How do your legs feel? Can you feel your pinky toe? What about your knee? Do your legs feel tense or free, or somewhere in between? Though these questions may seem random and unnecessary, their purpose is to maintain a whole-body, or inclusive, awareness in the midst of everyday activity. It is easy for students (and all humans, really) to become absorbed in the task at hand to the degree that they are not aware of hurting their bodies, be it through an overcorrected posture or sitting on the legs and thus cutting off circulation. Bringing students' attention to the extremities encourages an inclusive awareness in which every small part of the body works within the context of the whole being. In somatic education, many people fall into the trap of focusing exclusively on bringing freedom to one part of the body. They forget, however, that this part of the body is connected to others, and that the source of tension may actually be somewhere else. Therefore, students are encouraged to understand their whole beings and the interconnectedness of small body parts within the whole.

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[72] David Garlick, *The Lost Sixth Sense : A Medical Scientist Looks at the Alexander Technique* (Kensington, N.S.W.: University of New South Wales, 1990), 41-42.

Kodály

Like Carl Orff, Zoltán Kodály believed that musical instruction for children should begin as early as possible. Kodály's principal theory was that since children must know how to read in order to be literate members of society, they must also learn musical notation in order to become musically literate.[73] Kodály believed that a crucial component of this literacy was an education in one's national folk music, so he gathered folk songs from Hungary and used them to teach his students. The Hungarian government supported Kodály's pedagogy and actually incorporated his curriculum in schools across the nation.[74]

Lessons of this pedagogy primarily use singing as a means of experiencing music; Kodály believed that singing was the most personal form of individual expression and encouraged students to always sing with a pure tone and proper technique.[75] To facilitate learning intervals, he adapted the Curwen method of hand signs, altering the *fa* hand sign slightly to lead more towards *mi*. Kodály also developed a system of counting rhythm, in which a quarter note is counted as *ta*, and eighth notes are counted as *ti-ti,* among other rhythmic syllables.[76] This pedagogy delineates musical concepts into small structures that are repeated frequently in the classroom. These small structures are eventually put back into their musical contexts, once students understand them sufficiently; when students understand "ta" and "ti-ti", they can be taught quarter notes and eighth notes. Eventually, they can even learn that quarter notes do not always receive one beat. Kodály's main goal, then, was to use folk singing to teach music to students from a young age, sharing with students bite-sized chunks of knowledge that would eventually be expanded into more complex ideas.[77]

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[73] Beth Landis and Polly Carder, *Eclectic Curriculum,* 41.

[74] Ibid., 42.

[75] Ibid., 50

[76] Ibid., 44-45.

Appendix B: Kodály Lesson Plan

I have selected a Kodály lesson plan written by Dr. Kay Edwards, professor of music education at Miami University. It is entitled, "Move to the Beat" and teaches both form and steady beat to students in kindergarten through second grade.[78] The lesson begins with a recording of Zoltán Kodály's "Viennese Musical Clock" from the *Háry János Suite.* Students are asked to mirror the teacher's movement as the teacher creates motions to associate with each section of the form. Because this piece is in rondo form, the gestures associated with the A section return frequently. After students mirror the teacher, they are invited to improvise movement for the A, B, and C sections. The teacher selects student improvisations to create a new movement sequence for the form. Eventually, the teacher creates a locomotor movement, or one that guides students around the room. The students walk clockwise in a circle for the A section while standing still to perform the gestures associated with the B, C, and D sections.

In the final section of the original lesson plan, the teacher provides a sheet of paper with eight clocks on it for each student, and new gestures are created to represent the form: When the A section occurs, students tap on each clock to the beat of the music. For the B, C, and D sections, students tap on a different part of the body to keep a steady beat. Though the original lesson plan ends here, I altered this lesson by suggesting locations of the body to use for section B, C, and D: tap the ear canals for section B, the ankle for section C, and the greater trochanter for section D.

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[77] Beth Landis and Polly Carder, *Eclectic Curriculum,* 54.

[78] Kay Edwards, "Introduction to Music Unit for Grades K-2 on 'Viennese Music Clock' from *Háry János Suite* by Zoltán Kodály," (*Classics for Kids,* 2005, accessed 28 December 2016, http://www.classicsforkids.com/teachers/lessonplans/pdfs/kodaly/kodalyk-2.pdf).

Before playing the music, the teacher should have the students place their fingers at their ear canals and explain that half-way between their fingers, there is a joint where the head rests on the spine. Students can move their heads like bobble-heads to feel that joint. For section C, the teacher can point to the true location of ankle joint [see the anatomy portion of this thesis] and encourage students to move their foot at the ankle joint. For section D, the teacher should point to the greater trochanter and explain that the hip joint is slightly inside the body from this location. Students can place their heel on the floor in front of them and rotate the leg towards the body and away from the body, feeling the movement on the greater trochanter.

I chose these three locations for specific reasons. First of all, the atlanto-occipital joint is the primary origin of balance in the body and is an integral part of both body mapping and Alexander Technique.[79] As previously discussed, many people have no idea that this joint exists and unintentionally jut their heads forward, which collapses the rib cage and stresses the rest of the body. Thus, it is important that children become aware that their heads rests on the spine. I chose the ankle and the "hip" for a similar reason: many people have inaccurate understandings of where these parts of the body are located, so they tense their muscles in an effort to move from a misplaced joint. The teacher could have the students say the name of the joint verbally as they point to them with a steady beat (ex: "Hip, hip, hip, hip, AO, AO, AO, AO, etc.).

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[79] Conable, *What Every Musician,* 7.

Although the original lesson plan targets kindergarten through second grade, the adaptations may be more appropriate for older students. Also, the teacher will need to speak about the body in a way that is accessible to students and not so academic. For example, instead of referring to the iliac crest only with its scientific name, the teacher could lead the students in the following way: “Point to your belly button. Now, trace a line to the side of your body and move your fingers down your side until you find a big, bony bump. This is the iliac crest, and it is the top of the pelvis. Your legs do not connect to your body here.” The main goal is not necessarily to teach an anatomy lesson, but for the kids to begin to understand the true location of the joints and that the AO joint exists. *Note: In the previous example, the teacher would then explain where the legs do connect to the pelvis.*

The next portion of my adaptation facilitates an internalization of this anatomical knowledge. In this section, students improvise a movement for the associated body part for each portion of the form instead of simply pointing to it. This way, they can experience that body part in action. The teacher pauses the activity and probes the students by asking the following questions: Is this part of my body free? Can I move this part of my body without much trouble? How can I move this part of my body in a way that I have never moved it before? What do I notice about how this body part moves? What do I notice about how it moves in relation to the other parts of the body? The students then repeat the activity while thinking about these questions.

If students are exceptionally comfortable with somatics, they may be ready to think about each body part in relation to a body part designated by the teacher (for example: the nose or the eyebrows). If the nose was the new body part, it would become the association for the A section. Every time the A section occurs, students could wiggle their nose. Every time the B, C, or D section occurs, students could think about the associated body part (AO joint, ankle, greater trochanter) in relation to the nose. The teacher could inquire: How far is the greater trochanter from the nose? How do the nose and greater trochanter move differently? How do they move the same? Can I make my nose touch my greater trochanter? As mentioned in the Orff lesson, activities like this one help students place isolated body parts into the greater context of the whole body.[80] At the end of the lesson, students will reflect on all of the musical concepts learned and will discuss what they learned about their bodies.

Dalcroze

The Dalcroze method was created by Emile Jaques-Dalcroze in the late nineteenth century. Dalcroze believed that students should learn to express musicality through their bodies from a young age before advancing to play instruments.[81] Though his method is comprehensive in teaching all musical concepts, including theory and music history, Dalcroze is best known for his development of a teaching method called *eurhythmics,* a method of utilizing movement in the classroom. The eurhythmics method invovles the teacher leading students through physical movements that represent music that s/he improvises at the piano. The improvised music features a certain musical concept, such as dynamics or meter, and students express their physical reactions to the music through their bodies.[82]

Dalcroze's basic belief was that students should notice their physical responses to music and express them in movement. The teacher's job, therefore, is to structure these responses within a systematic curriculum, thus facilitating an internalization of dynamics, meter, and musical sensitivity through physical motion. Dalcroze also used movement to teach students about musical direction in symmetrical phrases, developing more advanced musical intuition in young children. He believed that students could not learn music through theoretical education; rather, they must experience the music for themselves. Once students have physically experienced the concept at hand, the Dalcroze teacher will introduce the traditional notation for this concept, returning children to the greater context of formal musical notation.[83]

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[80] Conable, *What Every Musician,* 5.

[81] Beth Landis and Polly Carder, *Eclectic Curriculum,* 10.

[82] Ibid., 8.

Appendix C: Dalcroze Lesson Plan

I have chosen a Dalcroze lesson that uses movement and emotion to teach dynamics.[84] The lesson is entitled, "Emotions in Dynamics" and was written by Frisk Anders, a certified Dalcroze instructor trained at The Juilliard School in New York. The basic premise of this lesson is that students will develop their physical capacity to express emotion, which will be paired with an exercise in dynamics.

The lesson begins with two lists of emotions listed on the board [see Appendix C, step number one for these lists]. Students silently demonstrate the facial expression of each emotion as the teacher points to them. Next, they display these emotions using their entire bodies, moving quickly between the different emotions expressed. The students then move through the room in the style of the given emotion, as the music teacher improvises music at the piano to fit each emotion. Mr. Anders has chosen to use rondo form to move from emotion to emotion. He uses "nothing" (as in, without emotion) for an A section that appears after every other emotion. By using rondo form, the students are learning about style and form simultaneously.

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[83] Beth Landis and Polly Carder, *Eclectic Curriculum,* 13-14.

[84] Frisk Anders, "Emotions in Dynamics," (*Dalcroze K-6,* Accessed 28 December 2016, https://sites.google.com/site/eurhythmicfritz/subjects-and-lessons/original-lessons/dynamics-1).

After expressing the lists of emotions, the kids come sit in front of the board, where there is a pattern of dynamics written [see step 11 for the pattern]. The students read the pattern off of the board, saying *piano* softly and *forte* loudly. Next, emotions are combined with the speaking dynamics so that children will say the word piano with a soft volume and in the emotion of love and will say the word forte with a loud volume and in the dynamic of excitement. All facial expressions and dynamic levels must demonstrate a distinct difference between piano and forte in order to meet the objective. Eventually, new emotions are associated with piano and forte, and the students repeat the exercise. The class is split in half so that one half of the room performs the "pianos" and the other half performs the "fortes".

At the end of the class, the teacher introduces the idea of a dynamic continuum, with *pianissimo* gradually increasing to *fortissimo*. Students are encouraged to brainstorm examples that represent all of the dynamics and to improvise that associated movement. For example, students may say that a *mezzo piano* dynamic is the same dynamic as two friends talking. They would then role-play two friends talking as the teacher improvises music at a mezzo piano dynamic.

My adaptations for this lesson were relatively minor. The original lesson plan asked the students to use all of the muscles of their faces to make the facial expressions in step one. I expanded upon this by displaying a picture of the muscles of the face [see Appendix E, figure 3] and asking the students to use even the smallest muscles in their facial expressions. Also, the teacher uses one child's facial expression as a model for the class. With the child standing at the front of the room near the picture of the muscles of the face, the students can then reflect on which muscles the student is using for his/her facial expression. They can also discuss what makes his/her facial expression so effective, specifically regarding the muscles of the face. Understanding the muscular structure of the face is particularly important for instrumentalists, who must move these tiny muscles in very specific ways in order to produce sound. According to Barbara Conable, mapping the muscles of the face can also be helpful for actors, who need to know how to manipulate their face in order to portray emotion.[85] This adaptation serves to more specifically prepare students for a future in the arts, if they so choose to pursue that path.

The second adaptation comes in step five of the lesson, when students are asked to stand up and express the emotion in their entire body. Frisk Anders notes in his original lesson plan that an acting teacher once told him: "You can tell a good actor by their [*sic*] feet. If the feet are engaged—you have buy in." Students need to know that emotions are not only expressed through the face, but through the entire body. In step five, I encourage students to express the emotion that's on their faces in their legs, arms, feet, back, neck, back of the knees, little toe, and pinky.

I have noticed that when humans think of themselves, they often associate their personhood physically with the area of the head, forgetting that their third toe is as much of themselves as their eyes. Indeed, science supports this observation in that areas of the body are represented on the sensory area of the brain, with more space dedicated to areas with a greater number of sensory receptors. For most humans, the majority of this area is dedicated to the head, face, and hands. The *homunculus* is a diagram that lists the areas mapped onto the sensory area of the brain in order of location and provides a drawing of the associated body part whose size is determined by the amount of space dedicated to it. Most homunculi contain small toes and legs and huge eyes, lips, and hands.[86] Evidence suggests that one's homunculus can be changed with experience, as individuals who read Braille contain an unusually large area of the sensory cortex devoted to their index fingers.[87] By encouraging students to express emotions in the often forgotten parts of the body, kids can begin to understand all of their body parts and thus start to fill some detail into the vague areas of the representation in their brain. The adaptation in step ten serves the same purpose, though these extremities are now related back to other parts of the body. In this step, students are encouraged to move through the room as though they are angry, expressing their anger through two seemingly unrelated body parts.

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[85] Barbara and William Conable, *How to Learn the Alexander Technique,* 3rd Ed. (Portland, OR: Andover Press, 1995).

The adaptations in steps sixteen and seventeen serve the same purpose as steps forty and forty-one of the Orff Lesson Plan in Appendix A. Learning about dynamics and relating them to emotion will likely require a lot of focus for the students. They may be so focused on the task at hand that they are no longer aware of the space around them or their body parts below the hips. Followers of Alexander Technique emphasize the importance of being aware of one's space, which means understanding the size of one's physical environment and the space bewteen each person in the room. One reason for this awareness of space is that people sometimes become absorbed inside of themselves, lost in their own thinking.[88] This lack of awareness of space is often exhibited by a "pulling down" or a "pulling inward", where the person collapses the rib cage and brings the head down. Not only does this person put a barrier between himself/herself and his/her peers, but the pulled-downward alignment of the spine puts strain on the entire body, including the jaw and the lungs.[89]

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[86] Jim Olson, "Brain Maps—The Sensory Homunculus," (*Brainfacts.org,* 6 August 2014, accessed 4 April 2017, http://www.brainfacts.org/~/media/Brainfacts/Article%20Multimedia/Educator%20Section/Olson%20Handout.ashx*).*

[87] Russel Dewey, "The Homunculus," (*Psych Web,* Accessed 4 April 2017, http://www.intropsych.com/ch02_human_nervous_system/homunculus.html).

[88] Barbara Conable, "What To Do About Performance Anxiety," (*Andover Educators.* Accessed 28 December 2016, http://bodymap.org/main/?p=206).

When a person feels an emotion, that emotion is expressed physically through body language. While body language is a vital part of nonverbal communication, some scientists suggest that people who feel the same emotions on a regular basis (anxiety, for example) create a habit of holding the associated tensions in their bodies, even when they do not feel this emotion. The body then tricks the brain into feeling the emotion, due to its alignment in this habitual position, creating a vicious cycle.[90] Sometimes, students feel as though they must prove to the teacher that they are thinking, so they express this "thinking" in their bodies—stiff shoulder blades, collapsed rib cage, clenched fists.[91] Such holding of tension is a result of the connection between the emotions and the body. Teachers cannot control the way students use their bodies; however, due to the connection between emotion and alignment, it is important for teachers to foster a loving and supportive environment in which risks are encouraged and failure is seen as a road to discovering success., which may minimize stress in students. Teachers can also emphasize that students do not need to physically show the teacher that they are thinking; they can just think. This concept may be difficult for students to understand, but the teacher can combat anxiety-induced misuse by promoting a positive learning environment. One of the purposes of drawing students' attentions to their legs and feet so randomly in the lesson is to enforce that they can focus on learning and be aware of their surroundings at the same time. They can also work through difficult concepts without tensing their body, which will save them a lot of aches and pains in the long run.

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[89] Frank Wildman, "The Startle Reflex: Our Source of Chronic Pain and Stress," (*Huffington Post,* 24 October 2013, accessed 28 December 2016, http://www.huffingtonpost.com/frank-wildman-gcft-phd/chronic-pain_b_3661734.html).

[90] David Garlick, *The Lost Sixth Sense : A Medical Scientist Looks at the Alexander Technique* (Kensington, N.S.W.: University of New South Wales, 1990), 50-51.

[91] Peter Nobes, "The Alexander Technique: Posture training? Or mankind's next evolutionary step?" (presentation at the Annual Meeting of Alexander Technique International, Ardingly College, Sussex, UK, 25 October 2016).

Feierabend

Though not as well-known as the previous pedagogues, Dr. John Feierabend of the Hartt School has developed an incredible curriculum for general music education that utilizes folk song and dance to teach musical concepts. His curriculum is split between the lower elementary grades (*First Steps in Music*) and the upper elementary grades (*Conversational Solfege*) and emphasizes singing American folk songs and participating in folk dance as a method of experiencing music.[92] He believes that students should first learn by rote before learning how to read and notate music. Feierabend, like Orff, Kodály, and Dalcroze, believes that music education should begin as early as possible, so he has developed a curriculum for nursery children, aged birth through five.[93]

I have chosen to focus not on Feierabend's traditional lesson plans, but on a book he wrote entitled, “The Book of Movement Exploration”.[94] In this book, Dr. Feierabend worked together with a dance instructor named Jane Kahan to adapt the movement theories of Rudolf von Laban for elementary school. Laban was a Hungarian dancer who researched human movement and created a list of ten types of awareness that should be developed in all humans. Laban’s work transfers effortlessly to somatic education, as he advocated for an awareness of individual and collective body parts, space, and weight, among others areas.[95] I have chosen to adapt Dr. Feireabend's interpretation of area five: Awareness of Weight.

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[92] John M. Feierabend, *Conversational solfege: Teacher's Manual, Level,* (Chicago: GIA Publications, Inc., 2001).

[93] John M. Feierabend, *First steps in music for nursery and preschool,* (Chicago: GIA Publications, Inc., 2000).

[94] John M. Feierabend and Jane Kahan, *The Book of Movement Exploration: Can You Move Like This? (*Chicago: GIA Publications, Inc., 2003).

Appendix D: Feierabend Lesson Plan

Dr. Feierabend's original lesson plan is a compilation of seven activities that teach students an awareness of weight. The activities are separated into three subcategories: awareness of heavy vs. light; strong vs. gentle; and tense vs. relaxed.[96] I have included all seven activities in the lesson plan, though I adapted only six of them to include somatic education.

The first two activities emphasize the difference between heavy and light. For the first activity, students pretend that they are standing next to a refrigerator and that something important has fallen behind it. They must push the refrigerator out of the way to retrieve their beloved item. I have adapted this activity by encouraging students to notice how their bodies feel while they are pushing the weighty refrigerator. Students are encouraged to perform the exercise again, noticing how their bodies feel both during the pushing and after they have retrieved the object--it is likely that many of their muscles will relax once they retrieve the object. Students are also asked to push the refrigerator using every single muscle in their bodies and reflect on if this felt comfortable, which it most likely did not. They repeat the exercise again, noticing how the back of their neck feels while they are pushing the refrigerator, and I ask students to experiment with pushing the refrigerator in such a way that they can still move it while maintaining free necks. (Note: One would likely maintain a free neck by relying on body weight to push the refrigerator instead of muscular force.) The purpose of these prompts is for students to begin to think about how they are using their bodies in strenuous tasks. Adults may hear of friends who throw out their backs by lifting something very heavy. The human body is very powerful and capable of lifting heavy loads; however, this is done most efficiently when the human relies mainly on the skeletal structure instead of the muscles.[97] Relying on the skeletal system helps musicians prevent tension in their hands and arms and prevents non-musicians from injuring their backs.

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[95] Ibid., 4-5.

[96] Ibid., 36-37.

The second activity is similar to the first and requires students to imagine that they are building a snowman. First, the students must roll a small ball of the imaginary snow until it is too large to lift. Then, the students create a second ball of the snow that is also too large to lift, but they must pretend to lift it anyway and place it on top of the first snowball. Finally, a smaller, third ball of snow is rolled and placed on top of the second ball of snow. To adapt this lesson, I ask the students to notice how their bodies feel after they lift the heavy snowballs. The class also repeats the activity while noticing how the jaw, ears, back, neck, big toe, thighs, glutes, shoulder blade, and knee feel while lifting the second snowball [see Appendix D, "Building a Snowman", step 9]. Thinking about every part of the body at one time would likely overwhelm the students, so they can think about them one at a time and repeat the lifting action as many times as is necessary. The listed body parts are simply a template of examples; any body parts can be used.

Next, the students are confronted with a contrast in weight to the snowball, as they are asked to pretend that there is a feather in their hand. They reflect on whether this feather is light or heavy and pretend to stand on their tiptoes to place it in the top of the snowman's hat. The students then reflect on the difference between lifting the feather and lifting the ball of snow and are encouraged to describe the differences in as much detail as possible, referring to specific parts of the body in their reflection. For example, statements like “Lifting the snowball was harder” should be replaced by, “I felt strain in my thighs when I lifted the snowball, but I did not feel my thighs tense when I lifted the feather.” After students identify the difference between lifting the snowball and the feather, they are encouraged to lift the snowball again as though they are lifting the feather. To do this, students are encouraged to lift using their joints instead of muscular tension. I suggest that the teacher show how this can be done. The justifications for the snowball activity are the same as those for the refrigerator activity, but placed within a different imaginary situation.

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[97] Ruthie Alon, "The Program Rationale," (*Bones for Life,* 2010, accessed 28 December 2016, http://www.bonesforlife.com/185745/Rationale).

The next section of the awareness of weight portion of Feierabend’s curriculum teaches the difference between strong and gentle. In the first adapted exercise of this section, “Tap the Bubble”, the teacher blows imaginary bubbles to every student, who then gently taps his/her individual bubble into the air in order to keep it afloat. Eventually, the teacher asks the students to tap the bubble gradually to the other side of the room. The only adaptation I have made is to encourage students to use different parts of their bodies to tap the bubble. They are encouraged to use the most creative body parts possible, areas of the body that they normally would not notice, such as the knuckle of the middle finger on their right hand or their armpit. While students think about these forgotten body parts, they are introduced to the concept that there may be more involved with the body than we consciously consider. The teacher can then provide a picture of a skeleton so that kids can notice bones that they never knew existed and tap the bubble using these bones [See Appendix E, figures 1 and 2 for examples]. The purpose of this exercise is to move beyond a simple memorization of major joints, such as the sterno-clavicular joint, and move into the territory of body mapping. Students of body mapping often look at the skeleton and notice what strikes them as being unusual.[98] These striking areas are often the areas that have been mapped incorrectly or perhaps have been mapped with only vague detail, and they usually do not move with freedom. As the individual explores that body part in movement, s/he can better understand its function, size, and location and place an awareness of this body part into the awareness of the whole body. Music students are introduced to this practice as they notice surprising areas of the skeleton and experience those areas in movement.

In the last gentle/strong exercise, entitled “Eggshell Floor”, the children pretend that the floor is made of eggshells, and that they have to dance on the eggshells without breaking them. Students also pretend that there are imaginary drums hanging on top of the eggshell floor. As students move, the teacher periodically hits a tambourine to signal that they should stop walking and pretend to hit the imaginary drums in front of them. As the exercise continues, students will alternate between walking gently on the eggshell floor and hitting the imaginary drums.

My adaptations for this activity focus mainly on the drum portion of the lesson, in which I lead students through moving the different portions of their arm through the full range of movement. Students begin by exploring how they can move their sterno-clavicular joint before resuming the eggshell activity; however, when the teacher taps the tambourine, students are asked to hit the imaginary drums however they choose, as long as they maintain movement in the sterno-clavicular joint. The same process repeats with the gleno-humeral joint, the elbow, the wrist, the pinky, and the thumb. If students need a pictorial reference for their joints, the teacher can refer them to the picture of the skeleton hanging in the classroom [See Appendix E, figures 1 and 2 for examples]. At the end of the exercise, students are encouraged to reflect on the difficulty of moving the smaller portions of the arm (i.e.- the pinky and the thumb) and why. The teacher will also ask if the process of focusing on specific body parts was a challenge and why it was a challenge.

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[98] Conable, *What Every Musician,* 5.

Next, the students will repeat the process of walking on eggshells and hitting the imaginary drum while exploring the possibilities of hitting the drum in a strong way even when using small parts of the body. Students will also be encouraged to contrast the gentleness of walking on eggshells with the strength of hitting the drum. Though this lesson does not necessarily involve students in active body mapping, it does encourage them to experience the full possibilities of movement in the body, and experiencing free movement is one of the most important facets of somatic education, since habits are not changed without the experience of how the body could move in a freer fashion.[99]

The last Feierabend activity is perhaps the most direct transfer of somatic education to the elementary music classroom and is appropriate for upper elementary school, mainly fourth and fifth grade. This activity explores the difference between tense and relaxed by separating students into pairs. In these pairs, one student is designated as Person A, and the other is designated as Person B. Person A lies on the floor for the entirety of the lesson. Person B, on the other hand, takes parts of Person A's body in his/her hands (mainly the head, arms, and legs) and leads them in guided motion, as Person A allows this to happen by releasing all tension in his/her limbs. The original Feierabend lesson contrasts this relaxed movement with the second half of the lesson, in which Person A resists the movements of Person B. Feierabend's intent is that all Person A's would experience the difference between free movement and tense movement before switching roles.

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[99] Conable, "Origins and Theory of Mapping".

I have adapted the lesson by asking Person A to lie on the floor in the Alexander Technique's semi-supine position while Person B is moving their limbs. I have also asked that Person B attempt to move the limbs in their full ranges of motion. Students can interpret this instruction however they desire, either moving the entire limb through its full range of motion, or moving portions of the limb through their full ranges of motion. The details of movement are not as important as the experience of external, guided movement. Student A is asked to reflect on the following questions: What is striking about the way your partner is moving your body?; How is this movement different than you normally move?; Is your arm/leg/head moving in a way that you did not know was possible? How so?; and Do you think you could re-create this movement on your own?. Person A reflects on these prompts as Person B continues to guide their limbs in movement.

Next, Person B leads Person A through common motions, such as waving good-bye, nodding, shaking someone's hand, and talking with their hands. Student A is then asked to reflect on these questions: Can you perform these every-day activities without moving your entire body?; What parts of your body are necessary to perform these tasks?; and How much muscular effort is necessary to perform these tasks?. Next, Person B continues steps five through twelve of the lesson while Person A is encouraged to think about the area of the body that his/her partner is currently moving. The teacher then encourages the student to also think about the whole body, including the moving area. Lastly, students A and B communicate with each other about their experiences. Student A verbalizes some answers to the teacher's prompts, and student B communicates what s/he noticed while moving Student A's limbs. For example, Student B may have noticed a difficulty in movement in the left leg or may have noticed that Student A was hesitant to truly release muscular effort and trust Student B to move his/her body. Also, if Student A desires to focus on a particular part of the body to either release tension there or to become more familiar with its movement, the pair can repeat steps five through twelve until Student A understands that body part better. The students then switch roles.

The last activity is almost identical, except that Student A is encouraged to resist the movement of Student B. Because Student A is resisting movement, the teacher's prompts change. The teacher may ask: Does this movement feel comfortable?; Does it feel familiar to your everyday movement? How so?; How much force is necessary to resist your partner?; and How little effort can you use and still resist your partner?. Students are encouraged to experiment, which will result in accidentally "giving in" to Student B's movements. This is acceptable, as students need to find the minimum level of effort necessary to resist Person B. Also, students are promptedprompted to think about the part of their bodies that tenses in order to resist Person B and consider if there are areas that seem uninvolved in the resistance that may also tense, using the belly button, pinky toes, and eyebrow to check in with these "unrelated" parts of the body.

Students are also encouraged to assess the degree of tension on their right side in comparison their left side to notice if tension is limited to parts of the body, or if it spreads throughout. Next, they are instructed to limit the resistance to the joints, rather than relying on muscular effort and reflect on how using the joints compares to using mostly muscular effort. The students can also experiment with freeing other parts of the body while resisting their partners. Afterwards, Person B will share with person A what s/he noticed during the activity, including Person

A's habits and how it felt to try to move Person A's body. Person A will also share with Person B what s/he noticed about his/her body, which can be the response to any of the previous prompts. The two will reflect together: Did the two students discover anything as a team?; What do they know that they did not know before this lesson?; and How can they each continue individual discovery when outside of class?. The students will then switch roles and repeat steps five through sixteen of the lesson plan.

These partner exercises are almost direct adaptations of the Alexander practice of constructive rest. During constructive rest, a person lays in the semi-supine position, which is to lay on the ground with a small stack of books below the head and knees up. The person then considers the different parts of the body and allows gravity to ease them into muscular freedom as they release tension throughout the body. They may also move different parts of their body while in this position to notice how free movement could feel. In addition to releasing excess tension, constructive rest allows spinal fluid to return to the spine and brings ease to the digestive system. It is easiest to release tension when laying in this position, so students of somatic education usually lie in constructive rest at least once a day.[100] When students participate in an Alexander or Feldenkrais lesson, the teacher/professional moves the students' body in a similar manner to the beginning half of this Feireabend lesson.

The tense/relaxed activities of this lesson can teach music students one of the most important facets of somatic education, which is self-awareness of the body during movement.[101] Students are guided by the teacher through intuitive questions to help them notice the tension and freedom in their bodies. These intutive questions are the types of questions that students can continue to ask themselves in their own journey towards somatic freedom. Thus, the last two activities teach music students how to carry somatic awareness out of the music classroom and into their everyday lives. For this reason, they are the missing link between incorporating somatic education into the classroom and fostering whole body awareness in students outside of the music class.

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[100] Imogen Ragone, "Constructive Rest," *(Body Intelligence: Alexander Technique with Imogen Ragone,* 2016, accessed 28 December 2016, http://imogenragone.com/self-help/constructive-rest/.)

[101] Conable, *What Every Musician,* 5.

Conclusion

The principles of William Conable, F. M. Alexander, and other somatic pedagogues offer specific methods for minimizing muscular tension and freeing the parts of the body to work together as a whole. Teachers may consider incorporating these principles into the general music classroom as a means of developing the whole student and helping future musicians avoid performance injuries. Adaptations to include somatic education into the general music classroom do not have to be extensive. Rather, pre-existing lessons of pedagogies such as Orff, Kodály, Dalcroze, and Feierabend can be altered by adding short, relevant activities which introduce the parts of the body and their full ranges of motion. Students will progressively develop a more acute awareness of the body and a more mindful approach to everyday movement.

There are many opportunities for expanding this research. First of all, most of the adapted lesson plans are currently aimed towards upper elementary students, due to the abstract nature of the material. The author hopes to gauge which of this thesis's adaptations would be age appropriate for the younger children and to determine methods of incorporating these concepts in a way that lays the foundation for free movement without requiring these lower elementary students to have a complete understanding of somatic principles. Additionally, the scientific nature of somatic education lends itself well to cross-curricular instruction. The science Georgia Performance Standards will be evaluated to determine where the exact overlap lies, and science educators will be consulted to develop strategies to collaborate across disciplines.

Somatic education may also help students from troubled backgrounds, as research has recently been published on the connection between trauma and the body. Scientists previously understood that emotional healing could facilitate freer movement, due to the connection between the mind and the body. However, they now believe that it may be possible to bring emotional healing through somatic awareness.[102] The author wishes to explore this connection and develop methods of utilizing somatic education to help troubled students attain both somatic and emotional freedom. Lastly, a new trend in educational research is called *social emotional learning*, which teaches students how to discern and manage their own emotions, as well as develop adult relationships and make wise decisions. Self-care is an important aspect of social-emotional learning.[103] Because somatic education can be described as self-care of the body, the author foresees a great overlap between the tenets of social-emotional learning and somatic education and will further research the connection between the two.

The ultimate goal of this research is to develop a one-year curriculum of adapted lesson plans that can be offered in a book format to current educators. The curriculum will include kindergarten through fifth grade for one entire calendar year and will cover all of the Georgia Performance Standards in a cohesive, logical format. Every lesson will be created with the purpose of developing somatically aware students in the long term. To aid in the process of curriculum development, the author also plans to pursue and eventually complete Body Mapping certification with Andover Educators. Over time, hundreds of lives will be touched by the inclusion of this research into the general music classroom.

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[102] Bessel A. Van Der Kolk, *The Body Keeps the Score : Mind, Brain and Body in the Transformation of Trauma,* (London: Penguin Books, 2015).

[103] “What is SEL?”, *CASEL,* (accessed 7 March 2016, http://www.casel.org/what-is-sel/).

Bibliography

Alderman, Lesley. "Sit Up Straight. Your Back Thanks You." *The New York Times.* 24 July 2011, accessed 1 May 2017. http://www.nytimes.com/2011/06/25/health/25consumer.html.

Alon, Ruthie. "The Program Rationale." *Bones for Life.* 2010, accessed 28 December 2016. http://www.bonesforlife.com/185745/Rationale.

Anders, Frisk. "Emotions in Dynamics." *Dalcroze K-6.* Accessed 28 December 2016. https://sites.google.com/site/eurhythmicfritz/subjects-and-lessons/original-lessons/dynamics-1.

Astudillo, Delfina. "Human Body Parts Diagram for Kids." *Human Body Anatomy Picture.* 24 November 2016, accessed 28 December 2016. http://www.lindastorm.net/human-body-parts-diagram-for-kids/.

Barbara and William Conable. *How to Learn the Alexander Technique.* 3rd Ed. Portland, OR: Andover Press, 1995.

Beth Landis and Polly Carder. *The Eclectic Curriculum in American Music Education: Contributions of Dalcroze, Kodaly, and Orff.* Washington: Music Educators National Conference, 1972.

Brain, Marshall, "How Much Does the Human Head Actually Weigh?" *Brainstuff: How Stuff Works.* 27 July 2009, accessed 28 December 2016. http://www.brainstuffshow.com/blogs/how-much-does-the-human-head-actually-weigh.htm.

Bryan Catlin and John Lyons. "Chapter 22: The pleurae and lungs". *Basic Human Anatomy,* ed. Rand Swenson. 2008, accessed 28 December 2016. https://www.dartmouth.edu/~humananatomy/part_4/chapter_22.htm.

Calais-Germain, Blandine. *Anatomy of Movement.* Rev ed. Seattle, WA: Eastland Press, 2007.

Chance, Jeremy. *Principles of the Alexander Technique: What It Is, How It Works, and What It Can Do for You.* 2nd Ed. London: Singing Dragon, 2013. eBook Collection (EBSCOhost), EBSCOhost (accessed December 28, 2016).

Crisp, Brian. "Exploring Our Roots, Expanding Our Future: Lesson 2." *Teaching with Orff.* 31 May 2013, accessed 28 December 2016. http://teachingwithorff.com/exploring-our-roots-expanding-our-future-lesson-2/.

Conable, Barbara. *What Every Musician Needs to Know about the Body*: *The practical application of body mapping to making music.* Rev. ed. Portland, OR: Andover Press, 2000.

———. “What To Do About Performance Anxiety.” *Andover Educators.* Accessed 28 December 2016. http://bodymap.org/main/?p=206.

Conable, Barbara and William. *How to Learn the Alexander Technique: A Manual for Students.* 3rd ed. Rev. ed. Portland, OR: Andover Press, 1995.

Conable, William. “Origins and Theory of Mapping”. *Andover Educators.* 1992, accessed 1 October 2016. http://bodymap.org/main/?p=299 .

De Alcantara, Pedro. *Indirect Procedures.* 1997. Reprint, Oxford: Clarendon Press, 2009.

Dewey, Russel. “The Homunculus”. *Psych Web.* Accessed 4 April 2017. http://www.intropsych.-com/ch02_human_nervous_system/homunculus.html.

Edwards, Kay. “Introduction to Music Unit for Grades K-2 on ‘Viennese Music Clock’ from *Háry János Suite* by Zoltán Kodály.” *Classics for Kids.* 2005, accessed 28 December 2016. http://www.classicsforkids.com/teachers/lessonplans/pdfs/kodaly/kodalyk-2.pdf.

Feierabend, John M. *Conversational solfege: Teacher’s Manual, Level 1.* Chicago: GIA Publications, Inc., 2001.

———. *First steps in music for nursery and preschool.* Chicago: GIA Publications, Inc., 2000.

Garlick, David. *The Lost Sixth Sense : A Medical Scientist Looks at the Alexander Technique.* Kensington, N.S.W.: University of New South Wales, 1990.

John M. Feierabend and Jane Kahan. *The Book of Movement Exploration: Can You Move Like This?* Chicago: GIA Publications, Inc., 2003.

Jones, Frank Pierce. *Body Awareness in Action.* New York: Schocken Books, 1976.

Merry, Sue and Judith Kleinman. “Edukindness: The Alexander Technique in Education.” *Sue Merry.* 2010, accessed 25 February 2017. http://suemerry.vpweb.co.uk/upload/Edukindness%20Download%20V2.pdf.

Nobes, Peter. “The Alexander Technique: Posture training? Or mankind’s next evolutionary step?” Presentation at the Annual Meeting of Alexander Technique International, Ardingly College, Sussex, UK, 25 October 2016.

Nichols, T. Richard. “Scientific Basis of Body Mapping.” *Andover Educators.* 2004, accessed 1 October 2016. http://bodymap.org/main/?p=213 .

Olson, Jim. “Brain Maps—The Sensory Homunculus.” *Brainfacts.org.* 6 August 2014, accessed 4 April 2017. http://www.brainfacts.org/~/media/Brainfacts/Article%20Multimedia/Educator%20Section/Olson%20Handout.ashx.

“Orff Instruments.” *Classics for Kids.* Accessed 28 December 2016. https://www.classicsforkids.com/teachers/orffinstruments.asp.

Power, Anne. “Methodologies and Approaches: The Orff Approach.” *Music Australia.* Accessed 28 December 2016. https://musicaustralia.org.au/discover/music-education/music-education-methodologies-approaches/the-orff-approach/.

Ragone, Imogen. “Alexander Technique Directions—What are They?” *Body Intelligence: Alexander Techniuqes with Imogen Ragone,* 23 August 2012, accessed 28 December 2016, http://imogenragone.com/alexander-technique-directions-what-are-they/.

———. “Constructive Rest.” *Body Intelligence: Alexander Technique with Imogen Ragone.* 2016, accessed 28 December 2016. http://imogenragone.com/self-help/constructive-rest/.

Sanderson, Cindy. “Mindfulness for Clients, their Friends, and Family Members”, *University at Buffalo School of Social Work.* Accessed 28 December 2016. https://socialwork.buffalo.edu/content/dam/socialwork/home/self-care-kit/exercises/mindfulness.pdf.

Thompson-Barthwell, Judith. “Why Creative Movement in Music Class?” *Teaching with Orff.* 12 October 2016, accessed 28 December 2016. http://teachingwithorff.com/why-creative-movement/.

Van Der Kolk, Bessel A. *The Body Keeps the Score : Mind, Brain and Body in the Transformation of Trauma.* London: Penguin Books, 2015.

Wildman, Frank. “The Startle Reflex: Our Source of Chronic Pain and Stress.” *Huffington Post.* 24 October 2013, accessed 28 December 2016. http://www.huffingtonpost.com/frank-wildman-gcft-phd/chronic-pain_b_3661734.html.

“What is SEL?”. *CASEL. A*ccessed 7 March 2016. http://www.casel.org/what-is-sel/.

“Workshop with Brian Crisp!”. *Mountain Laurel American Orff Schulwerk Association.* 29 March 2011, accessed 28 February 2017. http://mountainlaurelaosa.blogspot.com/2011/03/workshop-with-brian-crisp.html.

Appendices

Appendix A: Orff Lesson Plan

Appendix A: Orff Lesson Plan

"Exploring Our Roots, Expanding Our Future, Lesson 2" by: Brian Crisp[104]

Grade level: 2-3

Objective: Students will perform a four-part Orff arrangement to accompany a poem.

Georgia State Standards applied in this lesson:
M3GM.2 – Performing on instruments, alone and with others, a varied repertoire of music
M3GM.4 – Improvising melodies, variations, and accompaniments

Materials:

- soprano xylophones
- alto xylophones
- bass xylophones
- glockenspiels
- Chinese bells
- 1 hand drum
- Class set of mallets

Procedures: *The students will:*

1. Demonstrate familiarity with the following poem by mirroring the teacher's gestures for *wash, wipe, ring,* and *tea* in the tempo of the poem:

   "Wash,   Wipe,

   Ring the bell for tea, please.

   Wash,   Wipe,

   Ring the bell for tea."
2. Tap the rhythm of the words on their knees while speaking the poem.
3. Move to the barred instruments, as instructed by the teacher, while reciting the poem mentally.
4. Prepare the barred instruments for the G pentatonic scale by removing all F and C bars.

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[104] Crisp, "Exploring Our Roots, Expanding Our Future: Lesson 2."

5. *Hold a mallet in their right hand and place their forearm on the ground with their palms facing down.*
6. *Rotate their forearms around the ulna so that the palm is now facing upwards.*
7. *Alternate between palms facing downwards and palms facing upwards while the teacher is reciting the poem. Students should alternate on the macro-beats of the poem (every half note).*
8. *Answer the following questions:*

   "Where is your arm moving from?"

   "Is your arm moving from the elbow or the wrist?"
9. *Place left hand on the right wrist and attempt to perform the same rotation from palms up to palms down using only wrist movement [not possible].*
10. *Perform the same rotation with their left hands wrapped around the elbow to feel the movement of the bones.*
11. *Place mallet in right hand and bring the arm slightly behind parallel with the body (as if reaching for something behind you).*
12. *Move the arm through its full range of motion by extending the arm and mallet in a big circle behind, above, and in front of the body until the mallet touches the ground.*
13. *Move the arm in reverse through the same range of motion when the mallet touches the ground, allowing it to rebound.*
14. *Place their arm (with the mallet) parallel to the floor.*
15. *Place their left hand on their right elbow and move the entire right forearm to the ground, allowing the mallet to strike the floor, and return to the starting position.*
16. *Repeat this movement of the forearm at different starting heights, being sure to always return to the starting position.*
17. *Repeat this movement of the forearm using the opposite arm.*
18. *Place their arm (with the mallet) parallel to the floor.*
19. *Place their left hand on their right wrist and move the right hand to the ground using only wrist movement, allowing the mallet to strike the floor, and return to the starting position.*
20. *Repeat this movement of the wrist at different starting heights, being sure to always return to the starting position.*

21. *Repeat this movement of the wrist using the opposite arm.*
22. Hold the shaft of a mallet in either the left or right hand and answer the following questions:

    "How heavy is the mallet?"

    "Is it as heavy as a book?"
    "Is it as light as a pencil?"
    "How much effort do you need to use to hold it?"
    "How little energy can you use without the mallet falling out of your hand?"
23. Tap mallets on the floor to the rhythm of the words using alternating stickings and proper mallet technique and correct rhythm.
24. Tap mallets on the floor only for the words *wash* and *wipe,* using proper mallet technique and correct rhythm.
25. Play step five on the high D of the barred instruments, using proper mallet technique and correct rhythm.
26. Play the rhythm of the words *wash* and *wipe* on high D and high E using alternating sticking, proper mallet technique, and correct rhythm.
27. Play the rhythm of the words *wash* and *wipe* on high D and high E using alternating sticking, proper mallet technique, and correct rhythm while the teacher plays the rhythm of the entire poem on an unpitched hand drum.
28. Play the rhythm of the words *ring the bell for tea, please* on high D and high E using alternating sticking, proper mallet technique, and correct rhythm while the teacher plays the rhythm of *wash* and *wipe* on an unpitched hand drum.
29. Play the rhythm of the words *ring the bell for tea, please* on the note B using alternating sticking, proper mallet technique, and correct rhythm while the teacher plays the rhythm of *wash* and *wipe* on an unpitched hand drum.
30. Play the rhythm of the words *ring the bell for tea, please* on the notes A and B using alternating sticking, proper mallet technique, and correct rhythm while the teacher plays the rhythm of *wash* and *wipe* on an unpitched hand drum.
31. Alternate between one side of the room playing the rhythm of the words *wash* and *wipe* on high D and high E using alternating sticking, proper mallet technique, and correct rhythm and the other side of the room playing the rhythm of the words *ring the bell for tea, please* on the notes A and B using alternating sticking, proper mallet technique, and correct rhythm.

32. Improvise a new melody for the B section of the poem (*ring the bell for tea, please*), which incorporates the note G by using their fingers to strike bars instead of mallets.
33. Perform their melodies for the class, using proper mallet technique and correct rhythm.
34. Alter the improvised melody by ending on the tonic (G).
35. Perform their melodies for the class, using proper mallet technique and correct rhythm.
36. Alter the improvised melody by beginning on the note B and ending on G.
37. Perform their melodies for the class, using proper mallet technique and correct rhythm.
38. Perform one student's improvised melody as a class, using fingers instead of mallets and using correct rhythms with the teacher playing the A section of the poem on an unpitched hand drum.
39. Perform the same melody as a class, using mallets with proper technique and correct rhythms with the teacher playing the A section of the poem on an unpitched hand drum.
40. *Continue performing the melody as a class with proper mallet technique and correct rhythm while drawing attention to their legs.*
41. *Mentally answer the following prompts:*

    "Notice how your legs feel."

    "Can you feel your pinky toe?"

    "What about your knee?"

    "Do your legs feel tense or free, or somewhere in between?"
42. Alternate between one side of the room performing the A section on notes D and E with proper mallet technique and correct rhythm and the other side of the room performing the B section using the selected improvised melody, using proper mallet technique and correct rhythms.
43. Perform the teacher's demonstration of a broken bordun between G and D on the beat, using proper mallet technique and correct rhythm.
44. Perform the broken bordun on bass xylophone with proper mallet technique and correct rhythms with one section of students while the rest of the class performs the A and B melodies with proper mallet technique and correct rhythms.
45. Recite the poem verbally and clap on the word *ring*.
46. Selected students will strike the Chinese bell during the word *ring* using proper striking technique and correct rhythm.

47. Perform the broken bordun, A and B melodies, and Chinese bell simultaneously with proper mallet/striking technique and correct rhythm.
48. Perform the teacher's demonstration of a melodic ostinato that begins on high G, walking down to the E and D, and back up to the E before repeating with proper mallet technique and correct rhythm.
49. Perform the broken bordun (bass xylophone), A and B melodies (alto and soprano xylophones), melodic ostinato (glockenspiels), and Chinese bell simultaneously with proper mallet/striking technique and correct rhythm.

Appendix B: Kodály Lesson Plan

Appendix B: Kodály Lesson Plan

"Lesson Plan #1: Move to the Beat" by: Dr. Kay Edwards, Miami University[105]

Grade level: K-2 without adaptations, more advanced with adaptations

Objective: Students will perform body motions to the beat, using the same motion for each "A" section as they listen to recorded music.

Georgia State Standards applied in this lesson:
MKGM.2 b. Perform a steady beat using body percussion as well as classroom instruments with appropriate technique.

M2GM.10 – Moving, alone and with others, to a varied repertoire of music

Materials:

- recording of "Viennese Musical Clock" from the *Háry János Suite* by Zoltán Kodály (available on the *Classics for Kids CD* or the *Classics for Kids* website)
- tapping page for section A of "Viennese Musical Clock" for K-2

Procedures: *The students will:*

1. Listen to "Viennese Musical Clock" and sway to the steady beat.
2. Mirror the teacher's motions to represent each section of the music. The motions should utilize both hands and should contrast for each section. The motion associated with the A section will return each time the A section returns.

   Note: The form of this piece is: Introduction-A-B-A-C-A-D-A-Coda
   Introduction: 0:01-08
   A 0:09-24
   B 0:24-38
   A 0:38-53
   C 0:53-1:11
   A 1:11-1:26
   D 1:26-1:41
   A 1:41-1:55
   Coda: 1:55-2:03
3. Improvise movement ideas for sections A, B, and C.
4. Demonstrate individual improvisations for the class.

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[105] Kay Edwards, "Introduction to Music Unit for Grades K-2 on 'Viennese Music Clock' from *Háry János Suite* by Zoltán Kodály."

5. Move to the entire form by incorporating selected students' movement improvisations into "Viennese Musical Clock" for sections A, B, and C; everyone can make up their own motion for D and a "big ending" for the Coda.
6. Perform the form along with the music using associated movements and a new locomotor movement for the A section.
7. Create a large circle and walk clockwise for each A section while standing still to perform the associated movements for sections B, C, D, Introduction, and Coda.
8. Perform the form with new associated movements:
    a. For the A section, students should tap on "tapping page for section A" that features 8 clocks in a row and demonstrate how to tap on each clock with the beat of the music.
    b. For the B, C, and D sections, students should tap on different body parts to the steady beat.
    c. *Suggestion: tap the ear canals for section B, the ankle for section C, and the greater trochanter for section D. The goal of this portion of the lesson is to bring awareness to the major joints.*
9. *Mirror the teacher's motions to represent each section of the music. Instead of prescribing specific movements, the teacher will associate each section of the form with a part of the body.*
10. *Improvise movement for the associated body part in the appropriate section of the form.*
11. *Reflect on the following prompts while improvising movement:*

    Is this part of my body free?

    Can I move this part of my body without much trouble?

    How can I move this part of my body in a way that I have never moved it before?

    What do I notice about how this body part moves? About how it moves in relation to the other parts of the body?

    Really advanced option: Think about the body part in relation to a specific part of the body, such as the nose.

12. Students will answer the following questions:
    "What part of the music did we move to today?"
    "Why did we move the same way for some sections of the music?"
    "What did we notice about our bodies while we were moving?"

Appendix C: Dalcroze Lesson Plan

Appendix C: Dalcroze Lesson Plan

"Emotions in Dynamics" by: Frisk Anders[106]

Grade level: K-2

Objective: Students will demonstrate the difference between piano and forte by improvising movement and gestures that are appropriate to the given dynamic and are associated with different emotions.

Georgia State Standards applied in this lesson:
M1GM.6 a. Distinguish between contrasts (pitch, dynamics, tempo, timbre) in various pieces of music.

M1GM.10 – Moving, alone and with others, to a varied repertoire of music

Materials:

- Picture of the muscles of the face [Appendix E, figure 3]
- Whiteboard
- Piano

Procedures: *The students will:*

1. Silently demonstrate the face for the following emotions using all of the muscles in the face *(even the smallest ones)*, which will be written on the board in two lists:

a. nothing (which will be silence), feeling just ok, good, love, proud, happy, excited nothing, bored, shy, embarrassed, jealous, afraid, angry

2. Individually demonstrate good examples of facial expressions, when called on by the teacher.

3. Reflect on the following prompt:

What is different about Student X's face that helps him/her show the emotion so well?

What muscles is Student X using to show us this face? [refer to the picture of the facial muscles]

4. Stand up in personal space and show the emotions with their entire body.

5. Stand up in personal space and express what's on their faces in their legs, arms, feet, back, neck, back of knees, little toe, and pinky and notice how this feels.

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[106] Frisk Anders, "Emotions in Dynamics".

6. Demonstrate the emotion chosen by the teacher at random while staying stationary.

7. Demonstrate the emotions chosen by the teacher in a rondo form while remaining stationary. For example: feeling ok, good, feeling ok, love, feeling ok, proud, feeling ok, happy, feeling ok, excited.

8. Demonstrate the emotions chosen by the teacher randomly at a faster pace while remaining stationary.

9. Move through the room as though they were angry as the teacher improvises music to fit the demonstration.

10. Move through the room as though they were angry, expressing their anger through two specific body parts: Notice how your feet and face are working together to show that you are angry. Notice how your elbows and knees are working together to show that you are angry.

11. Sit on their knees in front of the board, where the following pattern is written:

a. p p p p

b. f f f f

c. p p f f

d. p f p f

12. Read the pattern displayed on the board by saying "piano" softly and "forte" loudly, but without screaming *and without jutting their heads forward.*

13. Read the pattern displayed on the board saying the pianos softly and with the emotion of love and the fortes loudly and with the emotion of excitement. The voice, face, and gestures must clearly demonstrate the emotions and dynamic levels.

14. Read the pattern displayed on the board using several different emotions for piano and forte, maintaining a soft dynamic for piano and a loud dynamic for forte.

15. Read the pattern displayed on the board backwards (retrograde) using several different emotions for piano and forte, maintaining a soft dynamic for piano and a loud dynamic for forte.

16. Describe the feelings in their legs and knees.

17. Read the pattern off of the board using several different emotions for piano and forte, maintaining a soft dynamic for piano and a loud dynamic for forte, *focusing on having active knees and legs, as though they could stand up easily from their position.*

18. Divide into two halves.

19. Alternate between one side of the room performing the pianos with a soft dynamic and a specified emotion and the other side of the room performing the fortes with a loud dynamic and a specified emotion.

20. Switch designations so that the side of the room that previously performed the pianos now performs the fortes and vice versa.

21. Discuss how the listed emotions increase in intensity.

22. Steps 7-14 will be repeated with including pp, p, mp, mf, f, and ff in the chart.

23. Look at the following chart written on the board:

pp p mp mf f ff

24. Brainstorm ideas of things from nature, machines, or animals, that have the dynamics on the chart. For example:

pp- a mouse walking
p- a cat purring
mp- two friends talking
mf- someone talking to a group
f- a coach at a basketball game
ff- tiger roaring

25. Demonstrate the movement brainstormed by the class for each dynamic while the teacher improvises music of the accompanying dynamic.

Appendix D: Feierabend Lesson Plan

Appendix D: Feierabend Lesson Plan

"Theme 5: Awareness of Weight" by: John M. Feierabend & Jane Kahan[107]

Grade level: Various

Objective: Students will discern the difference between light and heavy, strong and gently, and tense and relaxed by roleplaying imaginary situations.

Georgia State Standards applied in this lesson:
M4GM.10 – Moving, alone and with others, to a varied repertoire of music
    b. Perform choreographed and non-choreographed movements

Materials:

- "The Elephant" from Carnival of the Animals by Camille Saint-Saëns for "Building a Snowman"
- A picture of a skeleton [see Appendix E]

Procedures: *The students will:*

5.1 Heavy/Light

Push the Refrigerator (heavy)

1. Imagine they are standing next to the refrigerator.
2. Imagine something very special has fallen behind the refrigerator, and they must move the refrigerator over about one foot to be able to reach it.
3. Press their whole bodies against the imaginary refrigerator and push as hard as they can.
4. Imagine that the refrigerator will not move.
5. Press against the imaginary refrigerator harder, and it moves a little bit.
6. Continue pushing against the imaginary refrigerator until it moves one foot and the object can be reached.
7. *Reflect on the following prompt:*
   After you finally got the object, what happened to your body (It likely relaxed because you were relieved.)
8. *Push the imaginary refrigerator to retrieve a new object, using every muscle of their bodies.*
9. *Reflect on the following prompt:*
   Did that feel comfortable?
10. *Push the imaginary refrigerator again while noticing how their necks feel.*

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[107] John M. Feierabend and Jane Kahan. *The Book of Movement Exploration: Can You Move Like This?*,36-37.

11. Reflect on the following prompt:

a. While pushing the refrigerator, does your neck feel free and relaxed or firm and tense?

b. Can you push the refrigerator with a lot of force but keep your neck soft and relaxed?

c. How might you do that (Hint: rely on body weight instead of just muscles).

12. Push the imaginary refrigerator again while reflecting on the previous prompts.

Building a Snowman (heavy)

1. Imagine that they are going to build a snowman.
2. Build the snowman by rolling a small ball in the imaginary snow.
3. Continue to roll the ball in the snow until it becomes bigger and heavier.
4. Push the ball around the snow until it becomes too big to push any more.
5. Roll a second ball in the snow until it is too big to push any more.
6. Lift the imaginary second ball onto the first ball of snow.
7. Roll one last ball and place it on top of the snowman.
8. *Reflect on the following prompts:*
    a. *How does your body feel after lifting the heavy snowballs? Is it sore or tired?*
9. *Complete steps 1-7 while reflecting on the following prompts:*
    How does your [jaw, ears, back, neck, big toe, thighs, rear end, shoulder blade, knee, etc] feel while you are lifting the snowball?
10. *Imagine that they want to put a feather in Mr. Snowman's hat.*
11. *Hold the imaginary feather in their hand in front of their body.*
12. *Reflect on the following prompt:*
    a. *Is the feather light or heavy?*
13. *Stand on their tiptoes and put the feather in the top of Mr. Snowman's hat.*
14. *Reflect on the following prompt:*
    a. *How does putting the feather in his hat feel different from lifting the really heavy lump of snow?*
    b. *Can you lift the big, heavy snowball again, but feel more like you are lifting a feather? Use your joints to lift the snowball high.*
15. *Watch as the teacher demonstrates lifting the heavy snowball by relying on the joints.*
16. *Roll one last ball and place it on top of the snowman by relying on the strength of the joints rather than tensing the muscles.*

5.2 Strong/Gentle

Break the Balloon (strong)

1. Imagine they are holding an inflated balloon under their arm with their other arm wrapped around it.
2. Imagine that inside one of the balloons is a coupon for a hot fudge ice cream sundae.
3. Pretend to break the balloon by punching the balloon with their first.
4. Punch the balloon repeatedly (increasing in intensity).

5. Place the balloon on the floor and stomp on it with one foot.
6. Imagine that the balloon breaks. The coupon was in the teacher's balloon. Better luck next time!

Tap the Bubble (gentle)

1. Imagine that the teacher is holding an imaginary bottle of bubbles and a bubble wand.
2. Imagine that the teacher blows bubbles out to each member of the class.
3. Gently tap their individual bubble up into the air.
4. Tap the bubble to keep it afloat.
5. Tap the bubble to gradually move the bubble over to the other side of the room.
6. *Reflect on the following prompt:*
    a. *As you tap the bubble across the room, can you use different parts of your body to keep the bubble in your air?*
    b. *Try tapping your bubble using the tip of your pinky finger, your heel, your sterno-clavicular joint, your gleno-humeral joint, your wrist, or your knee.*

Eggshell Floor/Imaginary Drums

1. Imagine that the floor is made of eggs and that they have to dance on the eggs without breaking them by moving in a light, gentle, and delicate way.
2. Imagine that there are small drums hanging in the air on top of the eggshell floor.
3. Move around the room gently on the eggshell floor.
4. Pause when the teacher hits the tambourine and make the loudest imaginary noise they can by hitting the imaginary drums hanging in the air.
5. Alternate between walking gently on eggshells and hitting the imaginary drum when the tambourine is tapped.
6. *Place their non-dominant hand on the sterno-clavicular joint of the moving arm and move the SC joint through its full range of motion.*
7. *Repeat steps 3-5; however, when the students hit the imaginary drum, they can hit the drum anyway they want, as long as they can feel their clavicle moving.*

8. *Place their non-dominant hand on the gleno-humeral joint of the moving arm and move the GH joint through its full range of motion (away from the body as well as all around in the socket).*
9. *Repeat steps 3-5; however, when the students hit the imaginary drum, they can hit the drum anyway they want, as long as they only move their arm from the GH joint and below. Nothing above the joint should move.*
10. *Move their elbow through its full range of motion and sense all the ways it can move.*
11. *Repeat steps 3-5; however, when the students hit the imaginary drum, they can hit the drum anyway they want, as long as they only move their arm from the elbow and below.*
12. *Move their wrists through the full range of motion.*
13. *Repeat steps 3-5; however, when the students hit the imaginary drum, they can hit the drum anyway they want, as longs as they only move their arm from the wrist and below.*
14. *Move their pinky finger through its full range of motion.*
15. *Repeat steps 3-5; however, when the students hit the imaginary drum, they can hit the drum anyway they want, as long as they only move their pinky through its full range of motion.*
16. *Move their thumb through its full range of motion (moving from the lowest joint near the wrist).*
17. *Repeat steps 3-5; however, when the students hit the imaginary drum, they can hit the drum anyway they want, as long as they only move their thumb through its full range of motion.*
18. *Reflect on the following prompts:*
    a. *Was it difficult to move small portions of your body? How so?*
    b. *Was it difficult to think about specific parts of your body while moving? Why do you think that is?*
    c. *How do you think you can hit the drum in a strong way, even when you are only allowed to use a small area of your body?*
    d. *Can you contrast the gentleness of walking on eggshells with the strength of hitting the drum, even when you are focusing on specific parts of your body?*
19. *Repeat steps 3-5 while students reflect on these prompts.*

5.3 Tense/Relaxed

Trust Your Partner

Note: If you do this activity after the eggshell/drum activity, then the students have already been introduced to the full range of movement for the joints. Introduce and practice the full range of movement for all of the joints previous to this lesson (you can incorporate it into warm-ups). Ask B students to focus on moving their partner's limbs through the full range of motion (as much as is possible on the floor).

1. Separate into pairs.
2. Designate one student as person A and the other person as person B.
3. Lie down on the floor in semi-supine position [knees in the air and feet on the floor in front of the body], if person A.
4. Sit down next to person A, if person B.
5. Person B should lift person A's arm as person A allows person Person B to have the full weight of his/her arm.
6. Moves A's arm up *through its full range of motion* [Person B], and person A allows this to happen.
7. Moves A's other arm *through its full range of motion* [Person B], and person A continues to trust person B with his/her arm.
8. Moves A's leg *through its full range of motion* [Person B], and person A allows this to happen.
9. Moves A's other leg *through its full range of motion* [Person B], and person A continues to trust person B with his/her leg.
10. Moves A's head *through its full range of motion* [Person B], and person A allows this to happen.
11. *Student A reflects on the following prompts:*
    a. *What is striking about the way your partner is moving your body?*
    b. *How is this movement different than you normally move?*
    c. *Is your arm/leg/head moving in a way you didn't know it could move? How so? How do you think you could re-create this movement on your own?*
12. *Person B leads person A through the following motions:*

    Waving good-bye

Nodding

Shaking someone's hand

Putting their arms out wide in expression ("talking with hands")

13. *Student A reflects on the following prompts:*
    a. *Can you perform these activities without moving your entire body?*
    b. *What parts of your body are necessary to perform these tasks?*
    c. *How much muscular effort is necessary to perform these tasks?*
14. *Continue steps 5-12 while reflecting on the following prompts:*
    a. *Think about the area of the body your partner is moving right now.*
    b. *Now, think about your whole body, including the area that your partner is moving.*
    c. *Think about your toes, your eyelashes, the feeling of the clothes on your back, the distance from where you partner is moving to the other side of your body.*
    d. *Put that part of the body into the context of your whole body.*
15. *Note: Students A and B will communicate with each other. If student A is thinking a lot about a certain movement, ask him/her to communicate to student B that they would like it if student B would continue just in that movement, until student A understands it better.*
16. Switch roles and repeat steps 5-15.

Resist Your Partner

1. Separate into pairs.
2. Designate one student as person A and the other person as person B.
3. Lie down on the floor, if person A.
4. Sit down next to person A, if person B.
5. Person B should attempt to lift person A's arm, and person A should resist the movement.
6. Moves A's arm *through its full range of motion* [Person B], and person A resists the movement.
7. Moves A's other arm *through its full range of motion* [Person B], and person A resists the movement.
8. *Sense the muscles and notice how much effort is necessary to resist Person B from moving the body part [Person A].*

9. Moves A's leg *through its full range of motion* [Person B], and person A resists the movement.
10. Moves A's other leg *through its full range of motion* [Person B], and person A resists the movement.
11. Moves A's head *through its full range of motion* [Person B], and person A resists the movement.
12. *Reflect on the following prompts:*
    a. *Does this feel comfortable?*
    b. *Does this feel familiar to your everyday movement? How so?*
    c. *How much force is necessary to resist your partner? How little effort can you use and still resist your partner? (It's ok if you accidentally use too little and give them your arm/leg/head.)*
    d. *Think about the part of your body that you are tensing right now. How does it feel? Now, how to the other parts of your body feel? Do they feel tense as well? What about parts of your body that you would not think would be involved in this motion--your eyebrows, for example. How do they feel? What about your belly button? What about your pinky toes?*
    e. *Is the right side of your body the same amount of tense as the left side, or different?*
    f. *Experiment with limiting the resistance to joints and not muscles as much. How does this compare to what you did before?*
    g. *Experiment with freeing other parts of your body while you are resisting your partner. Is this possible? Why or why not?*
13. *Repeat steps 5-10 while reflecting on the previous prompts.*
14. *Person B will tell person A what he/she noticed during the activity:*
    a. *What were partner A's habits?*
    b. *How did it feel as the one moving the body parts?*
15. *Person A shares with partner B what he/she learned and noticed about his/her body. This can be the answer to any of the prompts from step 12.*
16. *Reflect as a team:*
    a. *Did the two students discover anything as a team?*

   b. *What do you know now that you didn't know before this lesson?*
   c. *How can you continue individual discovery?*

17. Switch roles and repeat steps 5-16.

Appendix E: Supplementary Pictures of Anatomy

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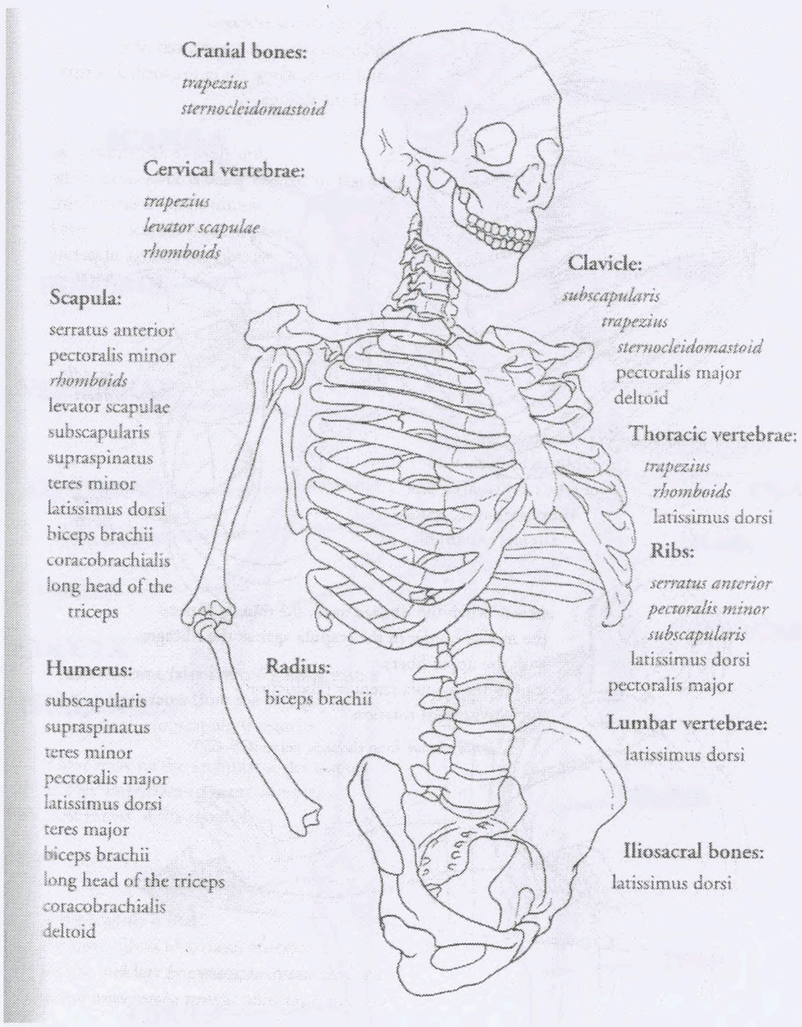
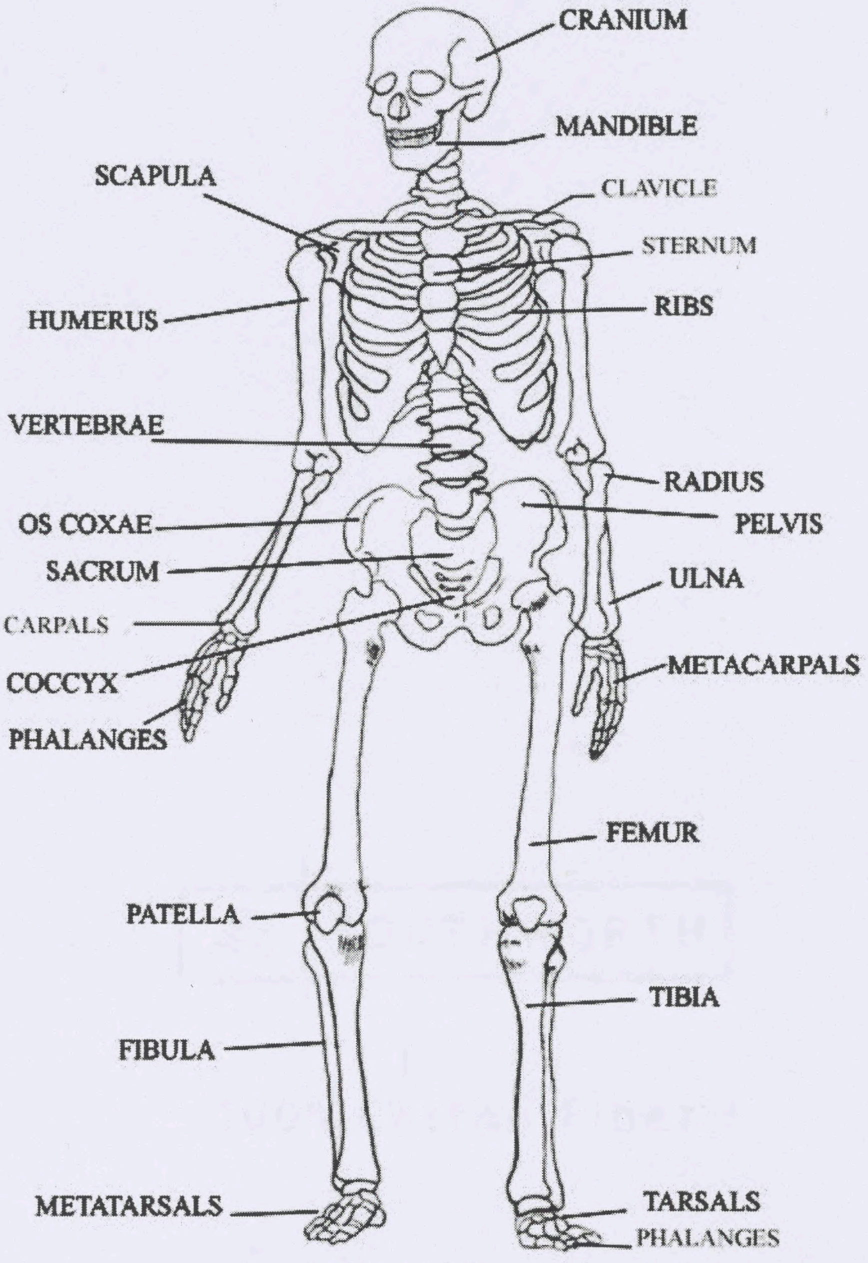
The Skeleton

Figure 1: the skeleton


Cranial bones:
trapezius
sternocleidomastoid
Cervical vertebrae:
trapezius
levator scapulae
rhomboids
Scapula:
serratus anterior
pectoralis minor
rhomboids
levator scapulae
subscapularis
supraspinatus
teres minor
latissimus dorsi
biceps brachii
coracobrachialis
long head of the triceps
Humerus:
subscapularis
supraspinatus
teres minor
pectoralis major
latissimus dorsi
teres major
biceps brachii
long head of the triceps
coracobrachialis
deltoid
Radius:
biceps brachii
Clavicle:
subscapularis
trapezius
sternocleidomastoid
pectoralis major
deltoid
Thoracic vertebrae:
trapezius
rhomboids
latissimus dorsi
Ribs:
serratus anterior
pectoralis minor
subscapularis
latissimus dorsi
pectoralis major
Lumbar vertebrae:
latissimus dorsi
Iliosacral bones:
latissimus dorsi

Source: Calais-Germain, *Anatomy of Movement,* 119.

Figure 2: The Full Skeleton

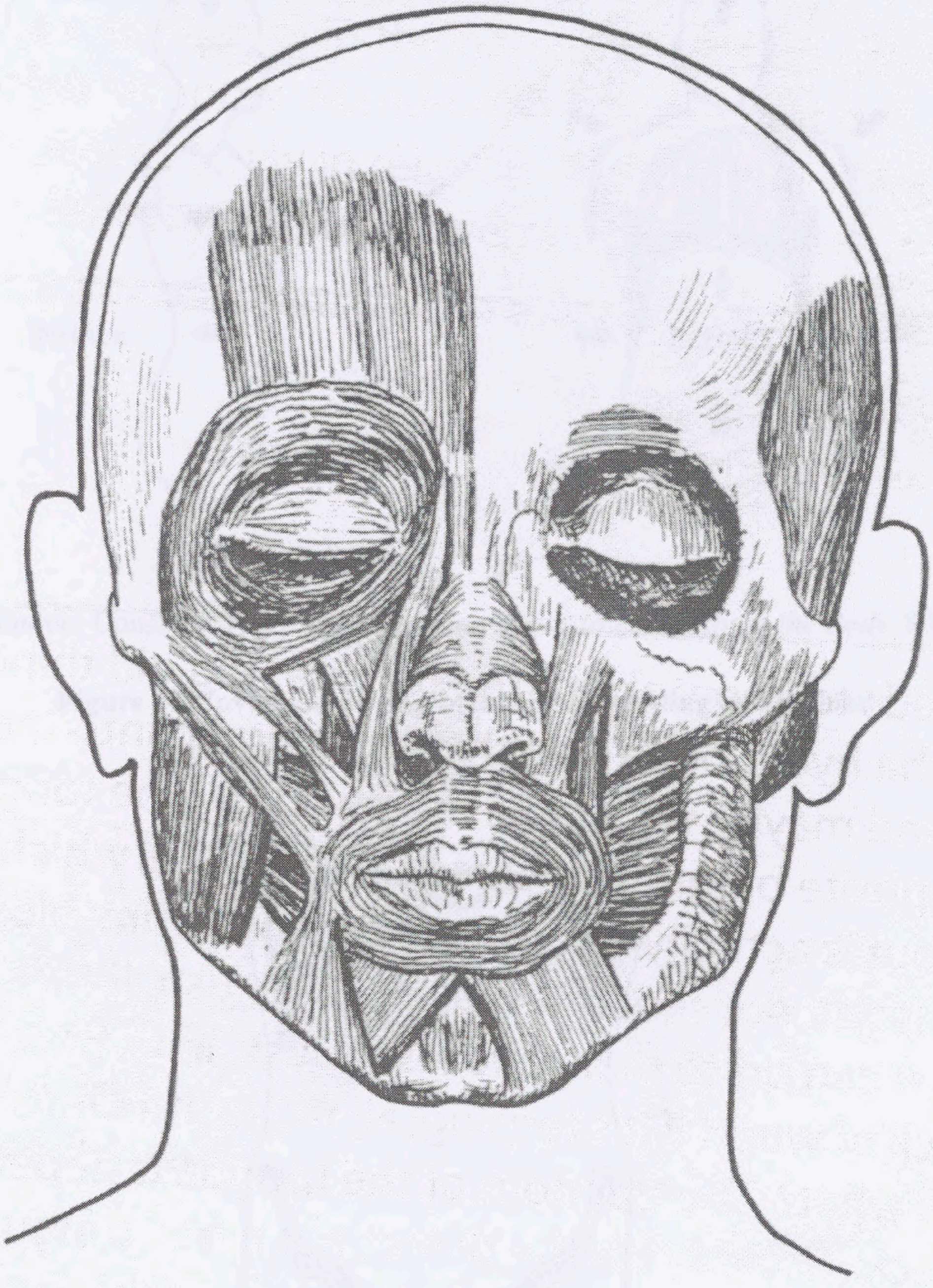

CRANIUM
MANDIBLE
SCAPULA
CLAVICLE
STERNUM
HUMERUS
RIBS
VERTEBRAE
RADIUS
OS COXAE
PELVIS
SACRUM
ULNA
CARPALS
COCCYX
METACARPALS
PHALANGES
FEMUR
PATELLA
TIBIA
FIBULA
METATARSALS
TARSALS
PHALANGES

Sketch by Abhishake Sharma

LABELED DIAGRAM OF SKELETON

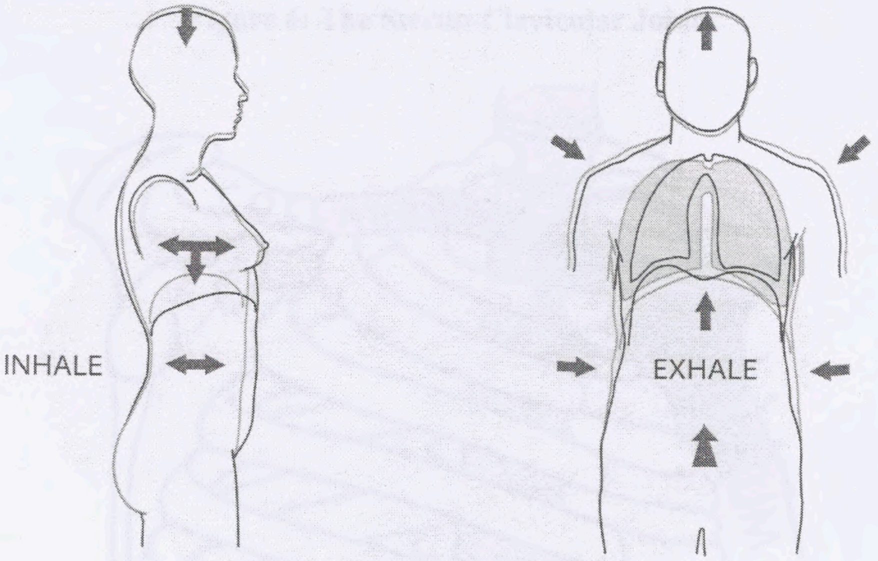
Source: Astudillo, Delfina. “Human Body Parts Diagram for Kids.

Figure 3: The muscles of the face



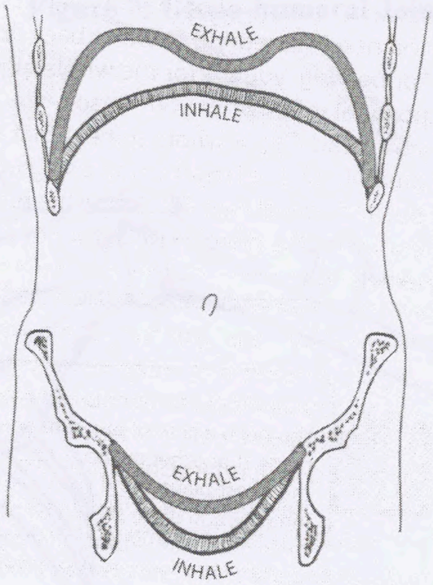
Source: Conable, *What Every Musician Needs to Know about the Body,* 91.

Figure 4: Movement during breathing


INHALE
EXHALE

Source: Conable, *What Every Musician Needs to Know About the Body,* 80.

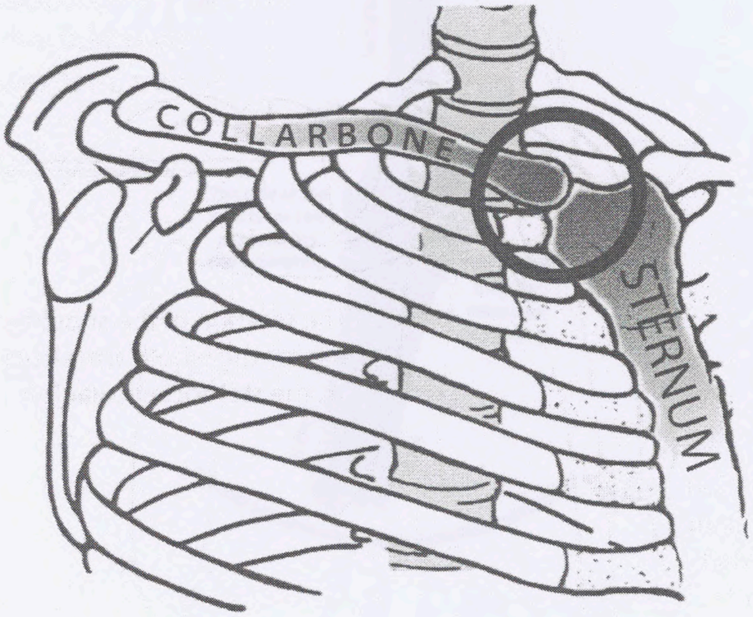
Figure 5: Movement during breathing, including pelvic floor


EXHALE
INHALE
EXHALE
INHALE

Source: Conable, *What Every Musician Needs to Know About the Body,* 87.

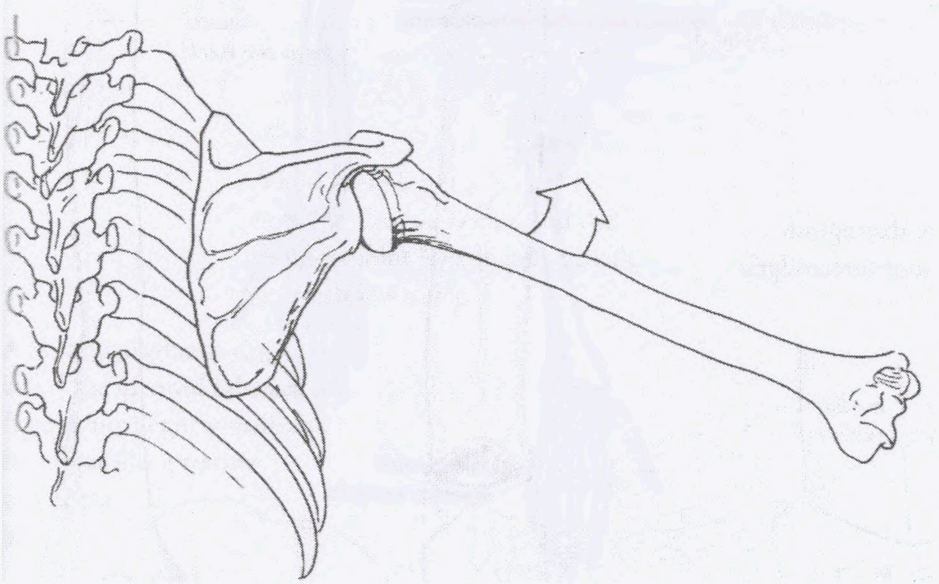
The Major Joints of the Body

Figure 6: The Sterno-Clavicular Joint



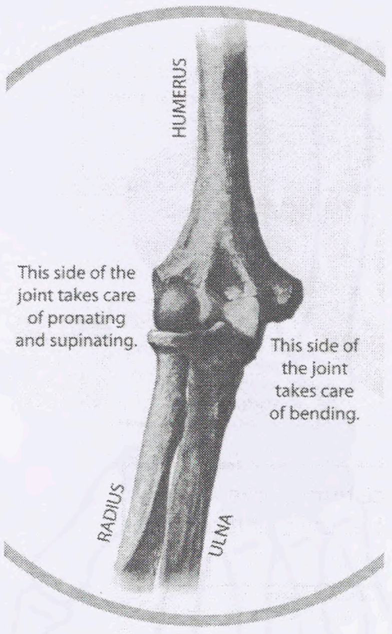
Source: Conable, *What Every Musician Needs to Know About the Body,* 52.

Figure 7: Gleno-humeral Joint



Source: Calais-Germain, *Anatomy in Movement,* 115.

Figure 8: Elbow

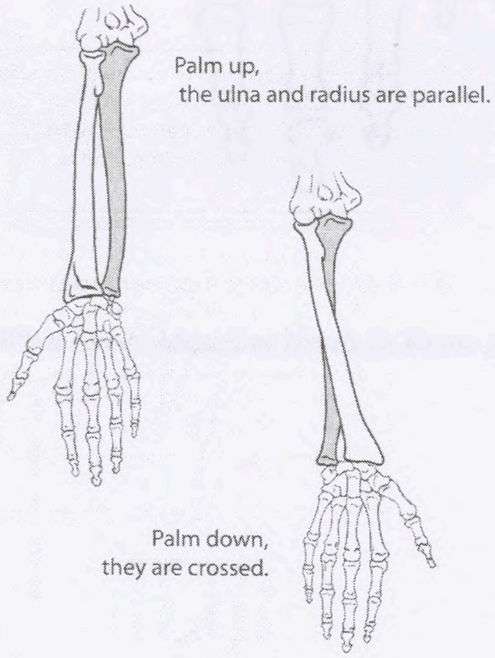


This side of the joint takes care of pronating and supinating.

This side of the joint takes care of bending.

Source: Conable, *What Every Musician Needs to Know About the Body,* 58.

Figure 9: Rotation of the Forearm

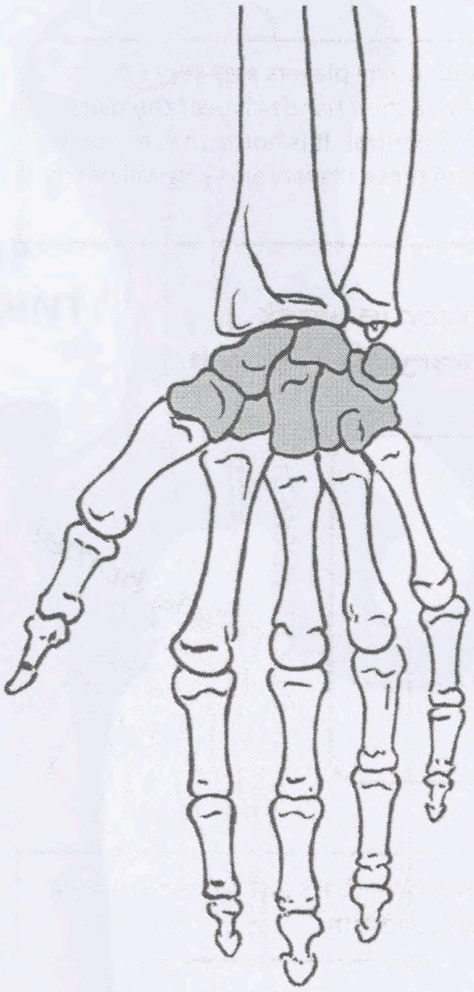


Palm up, the ulna and radius are parallel.

Palm down, they are crossed.

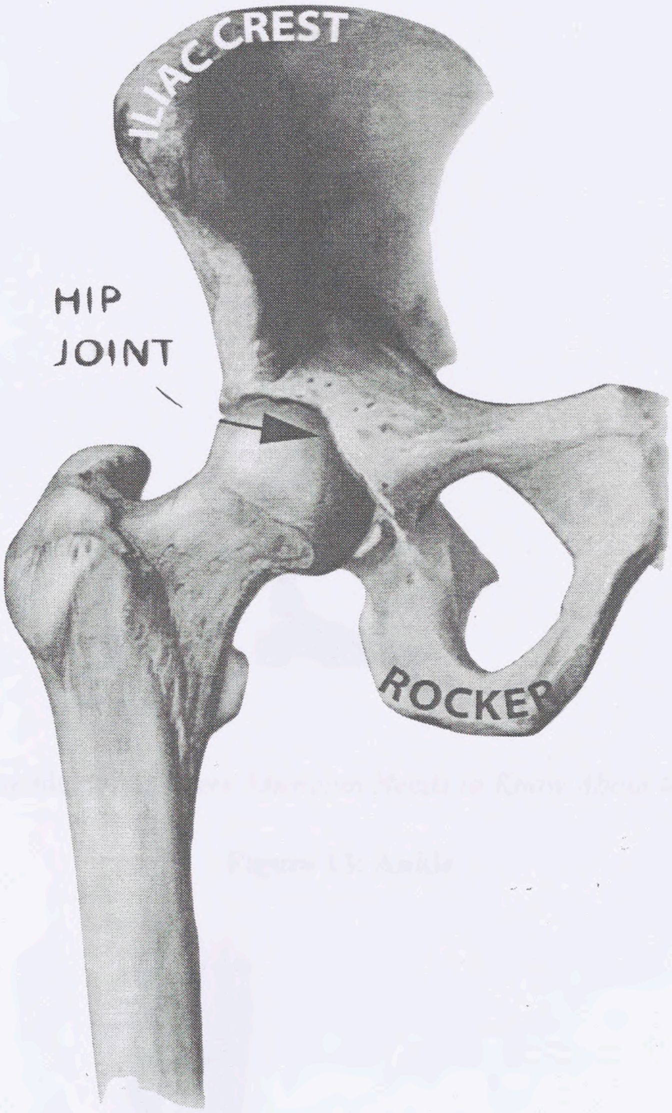
Source: Conable, *What Every Musician Needs to Know About the Body,*

Figure 10: Wrist and Hand (wrist shaded grey)



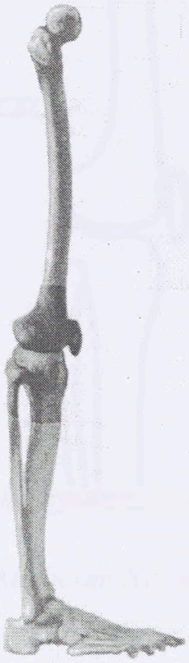
Source: Conable, *What Every Musician Needs to Know About the Body,* 64.

Figure 11: Sideward-Facing Hip Joints


ILIAC CREST
HIP JOINT
ROCKER

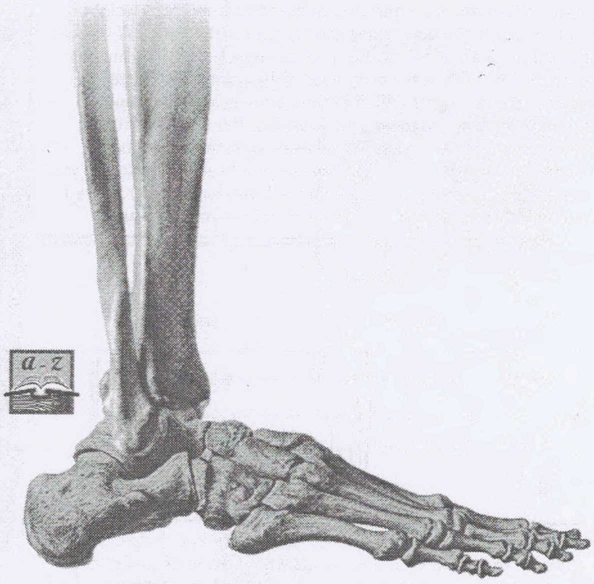
Source: Conable, *What Every Musician Should Know About the Body,* 24.

Figure 12: Knee



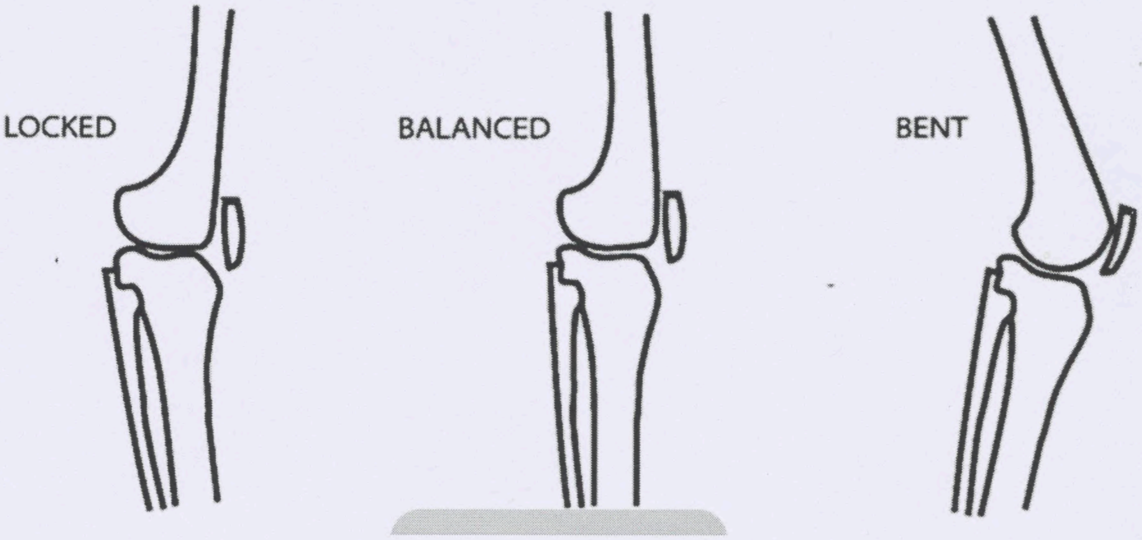
Source: Conable, *What Every Musician Needs to Know About the Body,* 30.

Figure 13: Ankle



Source: Conable, *What Every Musician Needs to Know About the Body,* 32.

Figure 14: Balanced Knees


LOCKED
BALANCED
BENT

Source: Conable, What Every Musician Needs to Know About the Body, 31.